CLINTON CROWN LAND PLAN

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CLINTON CROWN LAND PLAN

prepared by

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Thompson-Okanagan Region, Kamloops, B.C., and
Land Planning Branch, Victoria, B.C.

Province of British Columbia
Ministry of Lands, Parks and Housing
Victoria
1983

STATEMENT OF PLAN ADOPTION

The Clinton Crown Land Plan has been adopted by the Ministry of Lands, Parks and Housing and represents official ministry policy for the planning, management and disposition of unalienated crown lands in the Plan Area. All management and development decisions of the Ministry within the Plan Area shall be guided by the policies contained within this Plan and shall be consistent with the Crown land designations of the Plan Map until further review of the Plan by June, 1987 or until further detailed planning initiatives pursuant to the Plan and as specified in the Plan are finalized and approved by the Ministry of Lands, Parks and Housing and constitute addendum to the Plan to permit otherwise. Conformance of Crown land use proposals with this Plan in no way absolves the proponent from the responsibility of complying with all other pertinent government legislation and Ministry policy.

John Johnston 83. 01. 26

DEPUTY MINISTER DATE
Ministry of Lands,
Parks and Housing

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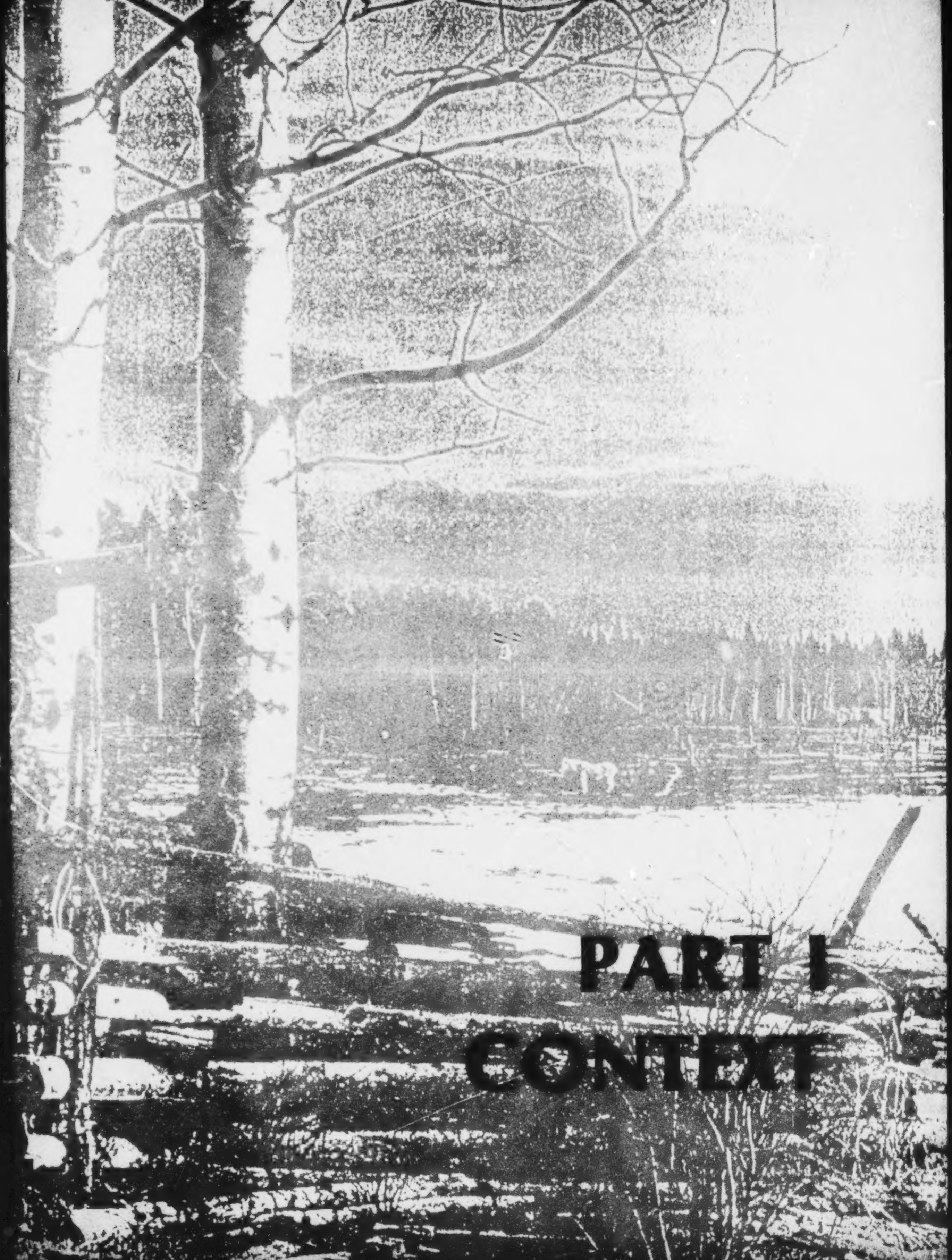

PART I
CONTEXT

PART I

THE CONTEXT FOR PLANNING

THE MINISTRY OF LANDS, PARKS AND HOUSING

The Ministry of Lands, Parks and Housing is responsible for the allocation and management of unalienated Crown land and Crown provincial foreshore. The statutory basis is the *Land Act*.

In furthering this responsibility, the Ministry has initiated the Crown Land Planning Program for unalienated Crown lands. This program is implemented through various levels of government, provincial agencies and the public to help meet the land needs of British Columbians in a manner that will optimize long-term economic, social and environmental benefits.

The planning program is comprised of five levels which are schematically illustrated in Figure 1.

NEED FOR BROAD-LEVEL PLANNING

The Ministry of Lands, Parks and Housing has focussed its planning activities for Crown land at the relatively detailed sub-district and operational levels. To date, no broad-scale anticipatory plan has existed to provide a context for the application of these more detailed planning initiatives. Without broad sub-regional plans in place, sub-district level plans can unconsciously attach values to land and resources which inadequately reflect those apparent within a broader sub-regional or district context.

To test the approach to sub-regional planning conceptualized in the ministry planning hierarchy and to refine the application of overview anticipatory planning for Crown land, the Clinton plan was initiated.

PLAN AREA SELECTION

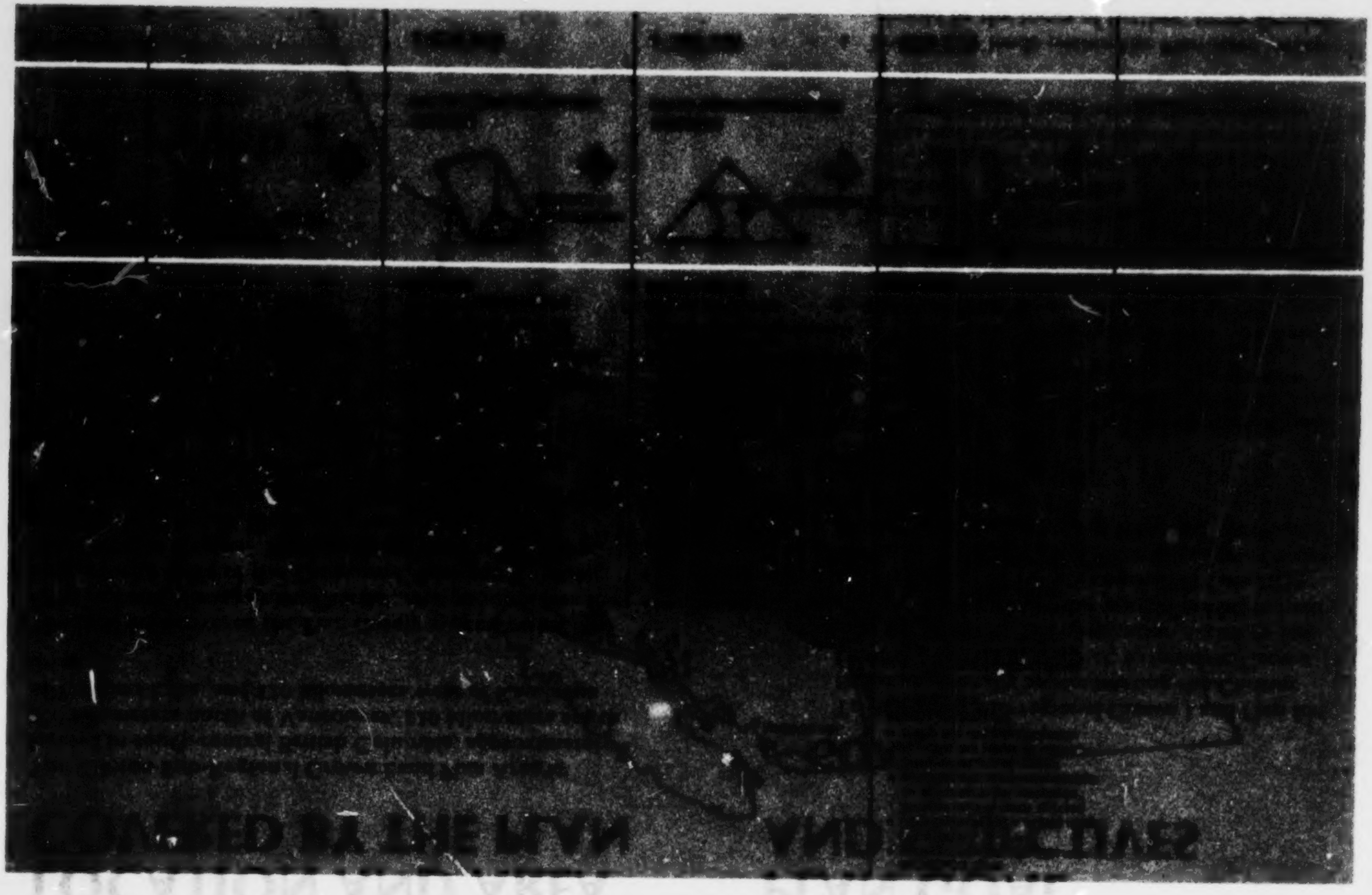
Selection of an area suitable for refining broad level planning of the Ministry was based on the following criteria:

1. The existence of jurisdictional, resource management and settlement issues that are of sufficiently manageable proportions to permit the plan to be prescriptive in nature;
2. The existence of a diversity of biophysical characteristics to ensure that the plan would have relevance to the maximum possible number of landscape types encountered in the resource management regions of the province;
3. The availability of overview resource capability information in published form suitable for the sub-regional scale of planning;
4. The need for an area which approximates an entire administrative district of the Ministry.

A number of different locations within the province were considered for the project. After comparison of these locations, according to the above criteria, the Clinton area was selected as most appropriate.

FIGURE 1

SCHEMATIC OUTLINE OF THE CROWN LAND PLANNING HIERARCHY



LOCATION AND AREA COVERED BY THE PLAN

The Clinton Sub-Regional Crown Land Plan Area is located in south-central British Columbia, approximately 200 kilometers north of Vancouver, 110 kilometers south of Williams Lake, and 120 kilometers west of Kamloops (Map 1).

The land area covered the Plan closely approximates the Clinton Land Management District, and encompasses the western one-third of the Thomson-Okanagan Resource Management Region. The maximum length of the area (north-south) is 142 kilometers, its maximum width (east-west) is 230 kilometers, and it covers approximately 1,315,000 hectares (Map 2).

PLAN GOAL AND OBJECTIVES

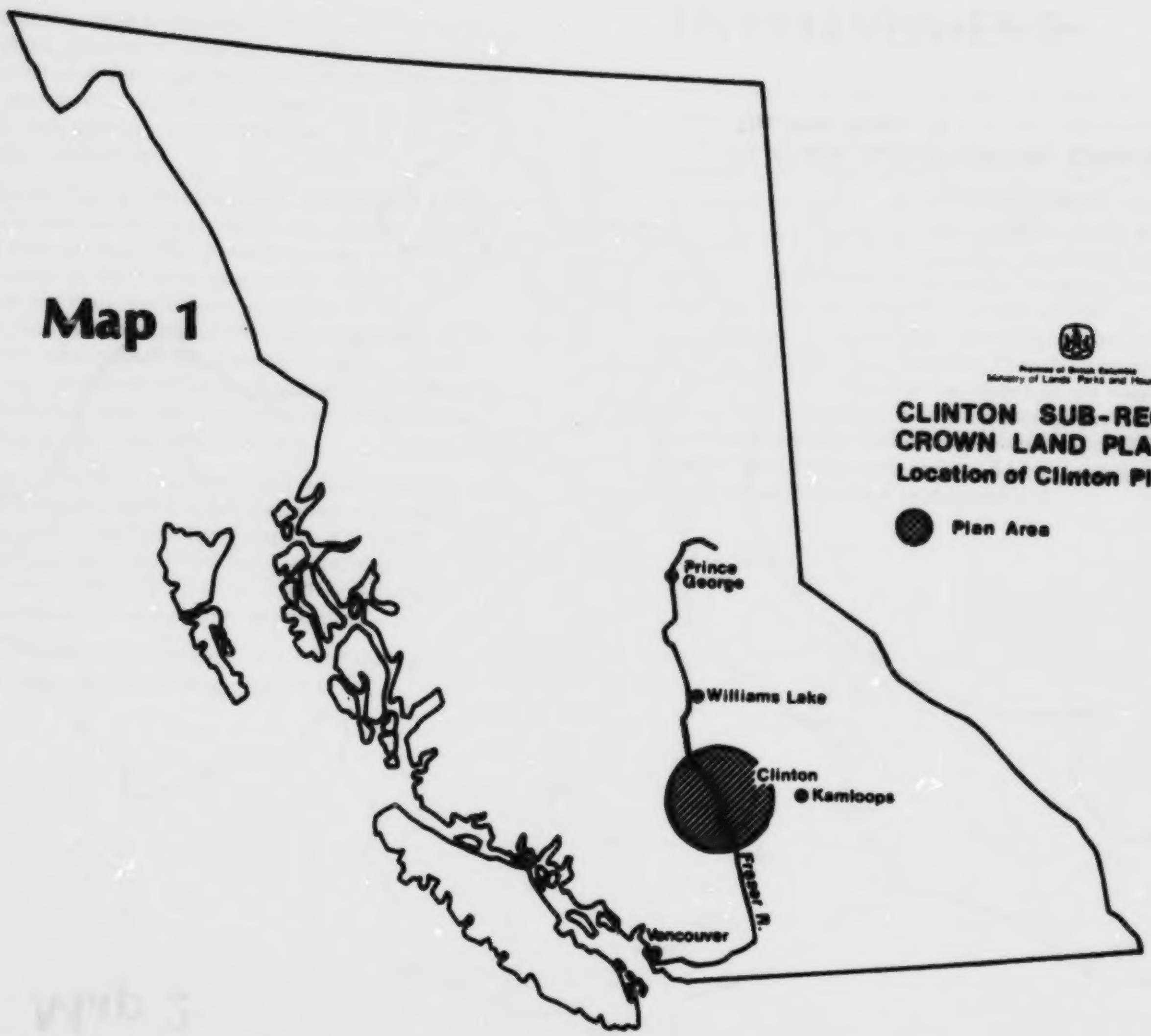
GOAL

To produce a sub-regional Crown Land Plan for the area generally approximating the Clinton Land Management District, to improve Crown land management and disposition decisions for the mutual benefit of the general public, industry and government agencies of British Columbia, and in so doing to refine the application of broad-level anticipatory planning for Crown land.

OBJECTIVES

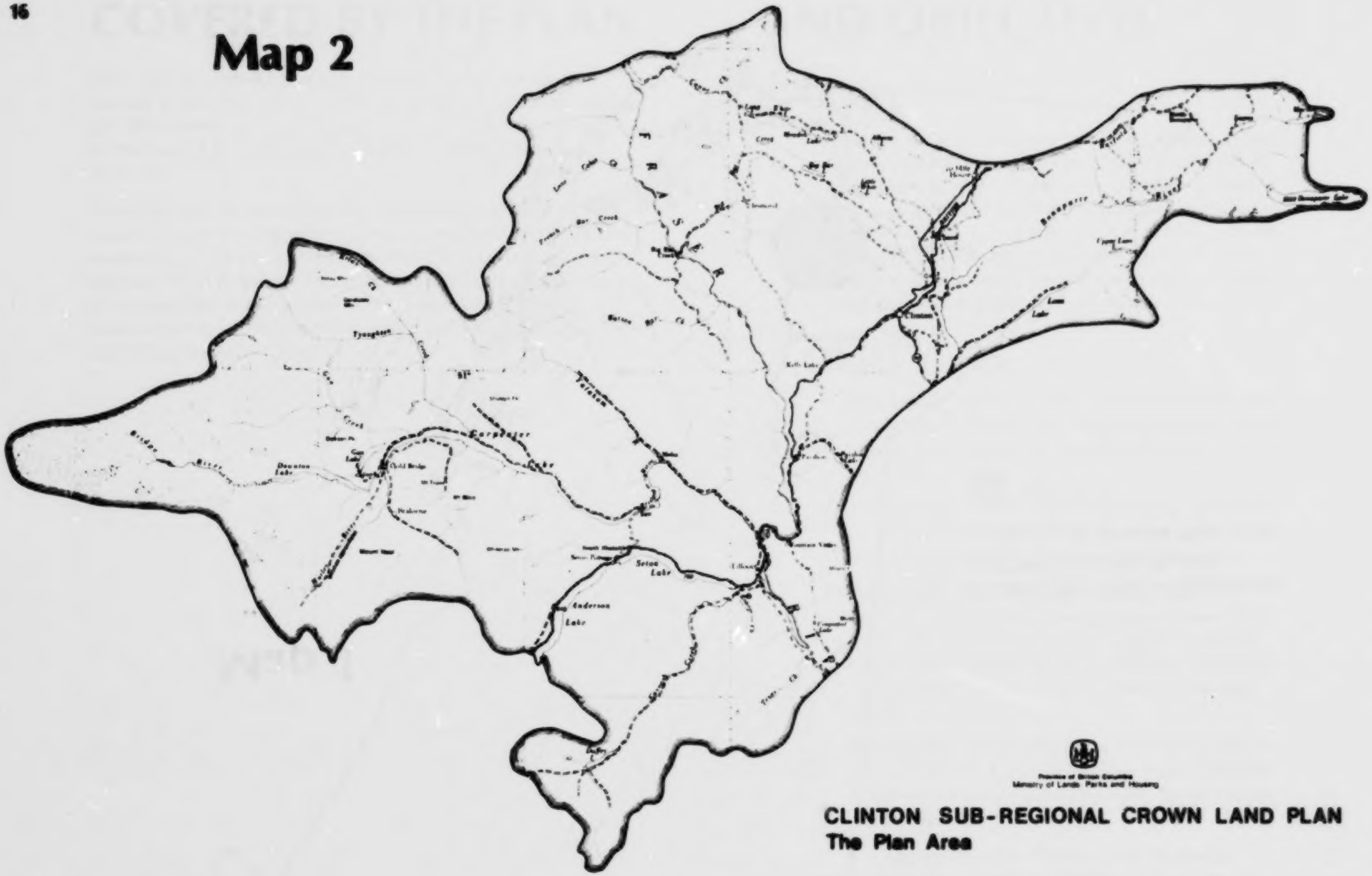
1. To identify broad Crown land use priority or preference areas based upon agency objectives and generalized biophysical and socio-economic parameters.
2. To determine the range of potential land uses and activities that should be associated with the identified priority or preference areas.
3. To prescribe policies and management guidelines that will assist in the adjudication of Crown land applications within the Plan Area and to establish a clearer framework for referral of land applications than presently exists.
4. To identify lands within the Plan Area which should be the focus of further, more detailed planning activity including sub-district plans and reports.
5. To ensure that the Crown land planning process is undertaken within the context of coordinated programs of various government agencies.

Map 1



Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Location of Clinton Plan Area
Plan Area
Prince George
Williams Lake
Clinton
Kamloops
Fraser R.
Vancouver

Map 2


Seton Lake
Anderson Lake
Carpenter Lake
Downton Lake
Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
The Plan Area
Boundary of the Plan Area

PLANNING PROCESS

In general terms, Sub-Regional Crown Land Planning is a process which overviews both the supply of Crown land and resources and the broad level requirements for their use. The purpose is to establish broad use and management priorities, identify associated uses and produce management guidelines.

In the Clinton Plan, evaluation of the supply of Crown resources focuses on an analysis of overview land capability information. This permits an assessment of the range of resource use and management opportunities available in the Plan Area. Basic premises in this evaluation are the principle of multiple resource use and a recognition of compatibility among resource values. Evaluation of land and resource requirements focuses on an analysis of the socio-economic characteristics of the sub-region and identification of issues.

Integration of the land capability and socio-economic data permits assessment of land allocation and policy requirements for the Plan Area. Based on these requirements, Plan allocations and Plan policies are developed which identify priority resource values, associated uses and management guidelines.

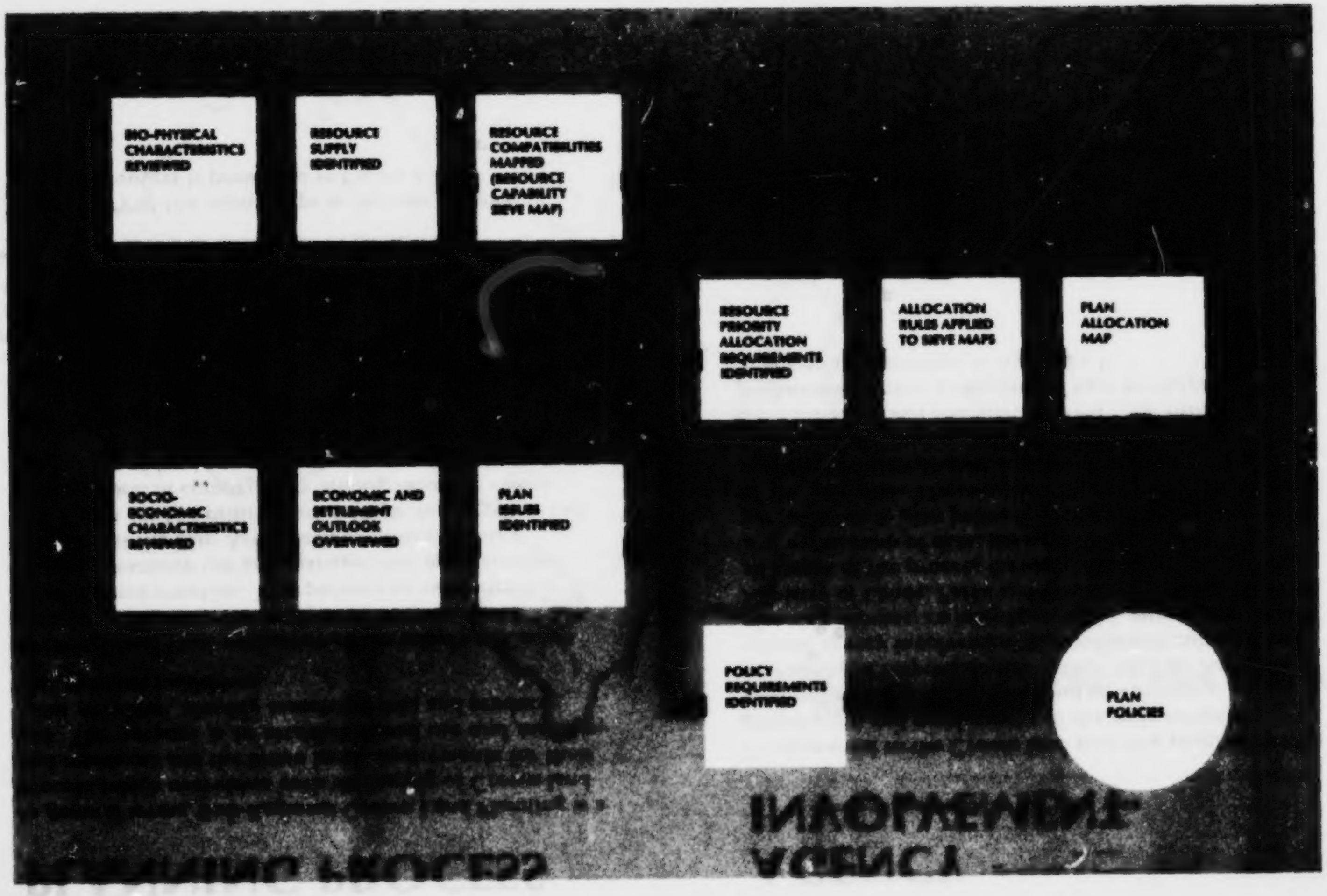
A summary of the major steps in the sub-regional planning process is presented in Figure 2.

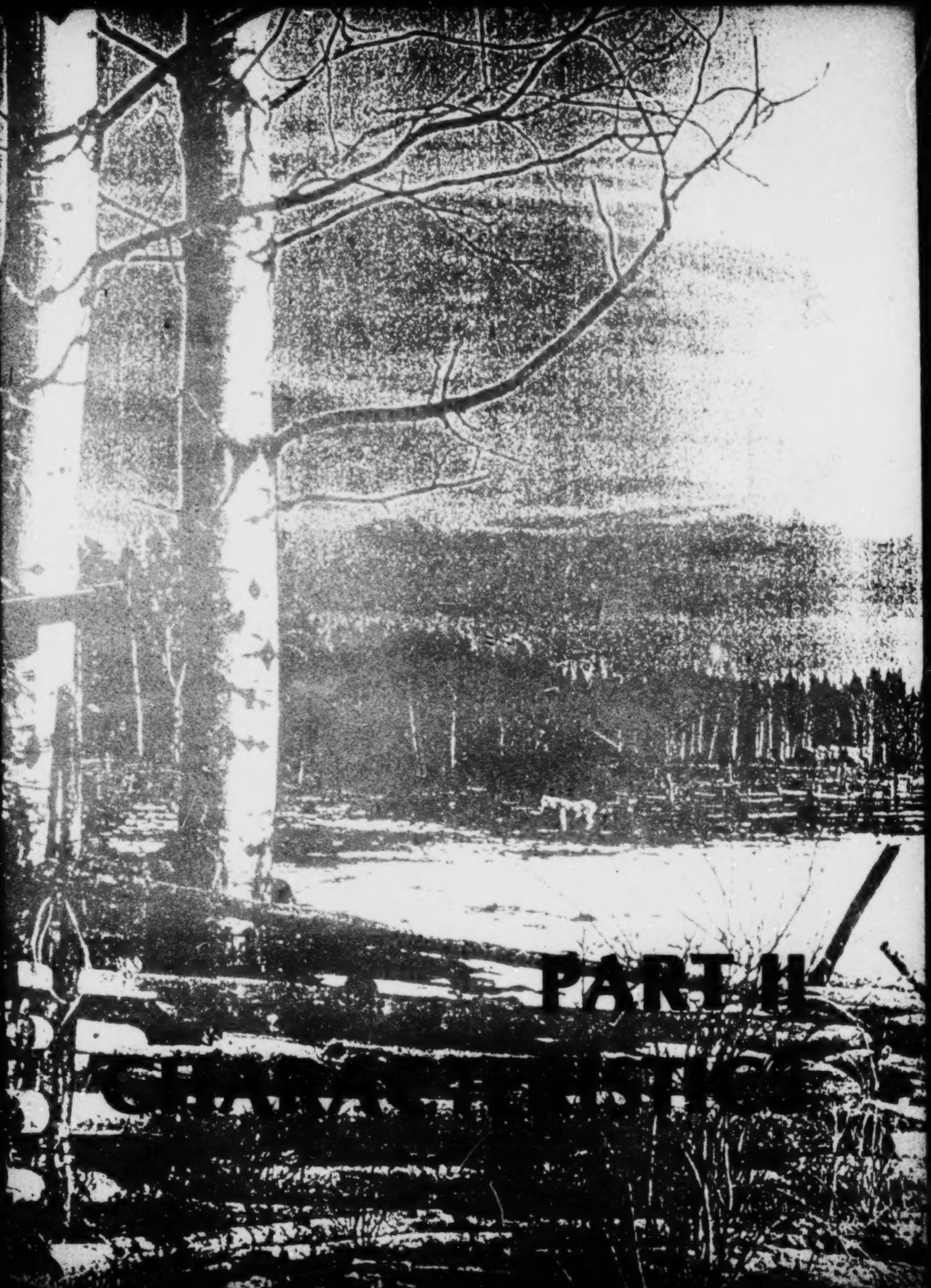
AGENCY INVOLVEMENT

Fundamental to the Crown land planning program is the cooperation and involvement of the wide range of government agencies having land and resource management responsibilities within the Plan Area. To ensure agency involvement in the Clinton sub-regional planning process, an interagency task group assisted the Ministry of Lands, Parks and Housing Planning Team at all stages of the process through: the provision, review and verification of data; the review of drafts; participation in plan policy formulation; and endorsation of the final plan. The resultant Plan document thereby represents a coordinated statement of the wide range of government agencies, including local government, which have jurisdictional and management responsibilities within the Clinton sub-region. These participating agencies are identified in Appendix II.

FIGURE 2

GENERALIZED SUB-REGIONAL CROWN LAND PLANNING PROCESS





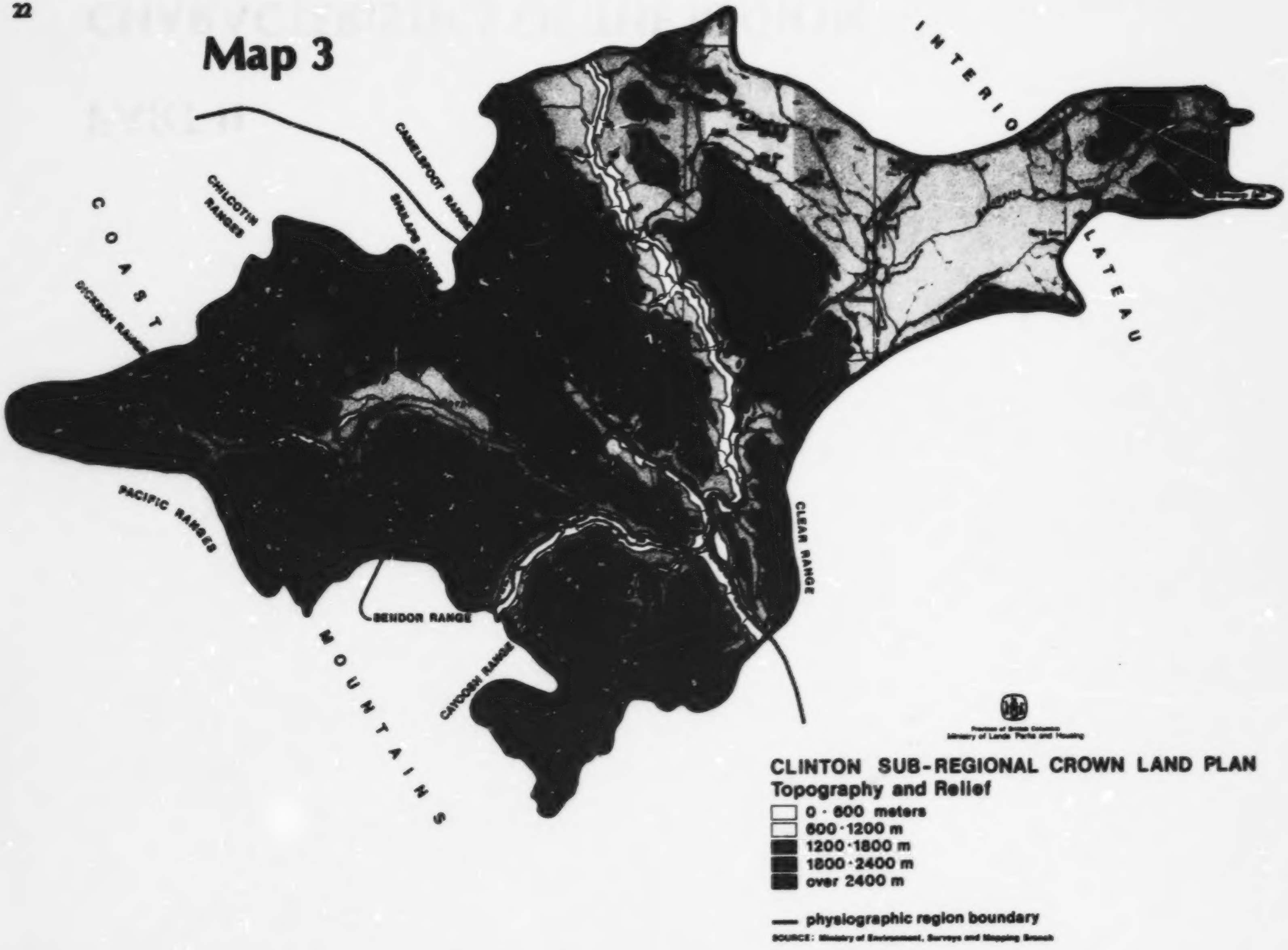
PART II

CHARACTERISTICS

PART II

CHARACTERISTICS OF THE REGION

Map 3


INTERIOR PLATEAU
COAST MOUNTAINS
CAMELSFOOT RANGE
SHULAPS RANGE
CHILCOTIN RANGES
DICKSON RANGE
PACIFIC RANGES
BENDOR RANGE
CAYOOSH RANGE
CLEAR RANGE
Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Topography and Relief
0 · 600 meters
600 · 1200 m
1200 · 1800 m
1800 · 2400 m
over 2400 m
physiographic region boundary
SOURCE: Ministry of Environment, Surveys and Mapping Branch

BIOPHYSICAL FEATURES

GEOLOGY, LANDFORMS AND RELIEF

The Plan Area boundaries incorporate two physiographic regions: the Interior Plateau and the Coast Mountains, each of which has its own distinct geologic history, landscape and relief pattern (Map 3).

The Interior Plateau Region occupies the eastern two-thirds of the Plan Area and consists of two major sub-zones. The first is represented by a flat-to-rolling upland plateau surface dotted by numerous lakes and dissected by several major stream valleys. The topography of this area, known locally as the Bonaparte Plateau, strongly reflects that of the underlying basaltic lava bedrock which flowed over the entire physiographic region 1.5 to 2.5 million years ago. The second sub-zone is characterized by the low, rounded, mountainous terrain of the Marble and Camelsfoot ranges, which were uplifted higher and subjected to greater erosion than the area to the east, with a resultant stripping away of the lava to expose more ancient limestones and other sedimentary rock.

The Interior Plateau landscape reflects the impact of the last glacial period which ended some 9,000 years ago. Glacial erosion rounded and domed the mountains of the Marble and Camelsfoot Ranges to create their present subdued appearance. Advancing ice deposited unsorted glacial material of mixed grain size (till) over the area and in places moulded the till into low, elongated ridges (drumlins). In other areas, it scratched, grooved and sculptured bedrock. Meltwater from retreating ice carved wide and deep meltwater channels into the landscape, particularly in the area north of Clinton. In the valleys of the Fraser, Bonaparte and Rayfield Rivers and Clinton Creek, meltwater enlarged existing channels and deposited sands and gravels. It also deposited sinuous sand and gravel esker ridges, particularly near 70 Mile House.

The Coast Mountain Physiographic Region occupies the western third of the Plan Area, and includes a portion of the Pacific Ranges and the Chilcotin Range. The region consists of ancient granitic and sedimentary rocks which have been subjected to much greater degrees of geologic uplift and stream dissection than those of the Interior Plateau. The dividing line between the two physiographic regions is a structural fault now occupied by the Yalakom and portions of the Fraser River (Map 3).

The Coast Mountain topography strongly reflects the influence of the most recent glaciation and is characterized by deep, wide, glacially-scoured valleys, extensive bedrock outcrops, amphitheatre-like cirques, saw-toothed peaks, and occasional remnant glaciers.

Since glaciation, geologic processes have further modified the Plan Area landscape. Streams have been continuously downcutting valleys, leaving terraces and floodplains. The higher terraces have since been capped by stream-deposited fans of sand, silt and clay, while coarse rubble materials (colluvium) have gradually accumulated on the steeper slopes. At the same time, erosion and depositional processes have acted to modify lake and stream shorelands.

CLIMATE AND SURFACE WATER RESOURCES

Climate

Climate is widely variable. Generally, annual precipitation is low, since much of the Plan Area lies on the leeward side of the Coast Mountains. This mountain range forces the prevailing eastward-flowing Pacific air masses to drop much of their precipitation primarily as rain prior to reaching the Plan Area. Temperatures associated with these Pacific air masses are mainly cool in winter and hot in summer, with higher elevations recording lower temperatures than those at lower elevations.

During winter, the Plan Area is occasionally blanketed by dry, cold Arctic air masses from the northeast which bring clear skies and temperatures well below freezing for short periods. In summer, hot and dry air will occasionally move northward and bring short periods of high temperatures in excess of 32°C.

Three distinctive climatic sub-zones may be identified in the Plan Area. The first consists of alpine and subalpine areas above elevation 1,500 meters, where precipitation exceeds 100 cm per year, mean January temperatures are below -8°C, and mean July temperatures are below 16°C. Wide differences in temperature, precipitation and snowfall are found between mountain peaks and valleys. In general, the average annual frost-free period is less than 60 days. This sub-zone includes most of the Plan Area west of the Marble Range.

The second sub-zone is associated with the plateau lands of elevation 900 to 1,500 meters. This sub-zone experiences 40 to 75 cm of precipitation annually and has mean monthly temperature ranges of -10°C to -6°C in January, and 15°C to 27°C in July. The frost-free period is a rather short 60 to 90 days per year over most of the plateau.

The third distinctive sub-zone is that of the deeply-incised stream valleys at lower elevations. These valleys are protected from the colder winter extremes of the plateau and mountain sub-zones. Summer temperatures are some 4°C to 8°C warmer than on the plateau surface. The frost-free period is considerably longer than on the plateau, ranging from 90 to 190 days. Annual precipitation is approximately 25 to 50 cm, and soil moisture deficiencies tend to occur during the summer months. The lower portions of the Fraser, Bonaparte and Bridge River Valleys are included in this sub-zone.

Surface Water Resources

Major surface water resource features are shown on Map 4. All major streams of the Plan Area drain into the Fraser River directly except for the Bonaparte River, which enters via the Thompson River to the south. All stream basins are predominantly forested and their geometry reflects geologic and topographic conditions. The largest are the Bonaparte Basin, which drains most of the Bonaparte Plateau and Marble Range, and the Bridge River Basin, which includes much of the Coast Mountain landscape within the Plan Area.

Streams which are unaltered by man attain maximum discharge in the months of June or July, primarily as a result of spring snowmelt and high intensity rainfall. Monthly flows tend to decline thereafter to reach lows during February or March. Streams with larger basins have greater annual flow and generally larger flood peaks than those draining smaller basins. The Fraser, which flows in a north-south direction through the centre of the Plan Area, is the largest stream, followed by the Bridge and Bonaparte Rivers. The Fraser River and other streams of the Plateau have characteristically meandering channels, numerous terraces or benches and wide flood-plains and are deeply cut into the land surface. Streams west of the Fraser have steeper overall gradients, are more braided in pattern, and have coarser materials and

fewer terraces in their valleys.

Most of the Plan Area streams are regulated by man, and flow characteristics have been altered for hydroelectric power generation (Bridge and Seton Rivers), irrigation (Bonaparte River), or domestic water supply (Clinton Creek). Under regulation, spring runoff is diverted onto irrigation lands or stored in reservoirs and distributed more evenly throughout the year. Peak spring flows are, therefore, reduced and minimum low flows are somewhat higher than would naturally occur.

The majority of lakes in the Plan Area are found on the Bonaparte Plateau, the largest being Bonaparte and Loon Lakes. Smaller, shallower and often saline lakes are numerous. On the west side of the Fraser Valley, lakes tend to be deeper and more elongated and occupy the glacially-scoured mountain valleys. Most are found in the Bridge and Seton River Basins. Lakes located in the mountains tend to be fewer in number but deeper, colder and clearer than their Plateau counterparts. One of the largest lakes is Carpenter Lake, a man-made reservoir for B.C. Hydro's LaJoie and Terzaghi Dams on the Bridge River.

Because the rights to use the water of most streams within the Plan Area are fully committed, and the availability of ground water resources is severely limited, most future water needs will have to be met from water stored during freshet. Map 4 and Figure 3 indicate those lakes where storage potential is already being realized and for which storage licences have been allocated. Water resources having additional storage potential are also indicated on Map 4. Lakes displaying storage potential are located on the Bonaparte Plateau, the most significant being Bonaparte, Machete and Eagan.

Utilization of lakes with steep shores and unused storage capacity rather than stream valleys can minimize conflict with alternative uses of valley bottoms. If lake storage potential is to be maintained, however, opportunity for altering lake levels for storage purposes must also be maintained and not be precluded by shoreland developments.

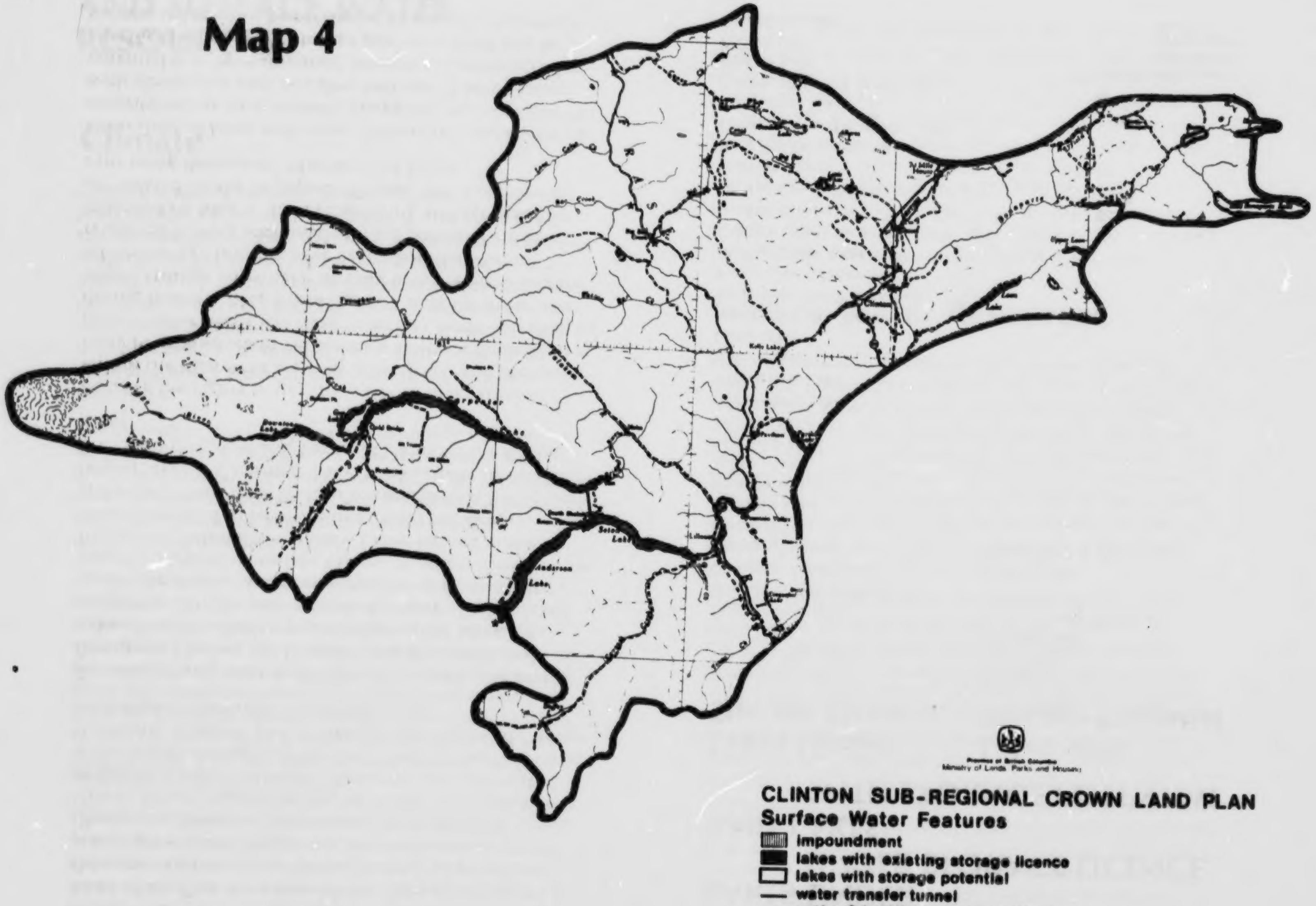
FIGURE 3

LAKES UNDER WATER STORAGE LICENCE, AND LAKES WITH STORAGE POTENTIAL

Lakes Under Storage Licence	Lakes with Storage Potential
Three Mile Lake	Bonaparte Lake
130 Mile Post Lake	Eagan Lake
Loon Lake	Machete lake
Upper Loon Lake	Moon Creek Reservoir
Brigade Creek Reservoir	Little White Lake
Campeau Lake	Moore Lake
McMahon Lake	Brigade Creek Reservoir
Home Lake	
Bandido Lake	
Bonaparte Lake	
Wilson Lake	
Machete Lake	
Trurans Lake	
Beaverdam Lake	
Valenzuela Lake	
Canoe Lake	
Long Lake	
Jesmond Creek Reservoir	
Fifty-nine Creek Reservoir	
Evans Creek Reservoir	
Daring Creek Reservoir	
Clinton Creek Reservoir	
Linden Pond	
McKay Creek Reservoir	
Pavilion Lake	
Berg Brook Reservoir	
Dwotlenemo (Fountain) Lake	
Cinquefoil Lake	
Cavanagh Creek Reservoir	
Moore Lake	
Brown Lake	
Magnesia Lake	

SOURCE: Ministry of Environment, Water Rights Branch

Map 4


Seton Lake
Anderson Lake
Carpenter
Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Surface Water Features
impoundment
lakes with existing storage licence
lakes with storage potential
water transfer tunnel
active & inactive gauging stations Water Survey of Canada
SOURCE: Ministry of Environment, Water Management Branch

VEGETATION

At a broad level of analysis, the "biogeoclimatic" zones of Krajina (1959) provide a suitable basis for the identification of vegetation zones and patterns within the Plan Area. Biogeoclimatic zones generally indicate areas of vegetation which are relatively uniform in species composition and physical structure and which are related to macro-climatic conditions.

Map 5 shows the four broad vegetation zones of the Plan Area. Their variation reflects the macro-climatic patterns associated with valley, plateau and mountain environments. The Alpine Tundra Zone is generally found in the mountainous terrain above elevation 1,800 meters, and is widespread west of the Fraser Valley. Vegetation generally consists of stunted fir, pine or spruce at lower elevations, and carpets of heather, grasses and herbs on higher elevation sites. The shrub layer is often poorly developed, generally consisting of dwarf willow and juniper. Where moist conditions exist, alpine meadows may be found, containing dense grass and sedge cover. Under more extreme conditions, only sparse lichens and mosses are found. These areas are very sensitive to disturbance because of the slow rate of re-establishment caused by the harsh climate.

The Engelmann Spruce-Subalpine Fir Zone dominates the remaining mountainous portions of the Plan Area, generally between 1,200 and 1,800 meters. In the drier low elevations, forest cover is continuous and dominated by lodgepole pine, subalpine fir and Engelmann spruce. The understory is generally poorly developed, consisting of plants tolerant of a large moisture deficit, acidic soil conditions and a short growing season such as lichens, mosses and a few shrubby species. At the wetter, upper elevational limits of this zone, the forest is patchy with clumped trees of poor growth and form consisting primarly of Engelmann spruce and subalpine fir. The understory here contains plants sustained by higher moisture levels such as mosses, sedges, and heathers. This vegetation zone in its natural state is generally of very limited value for agriculture but provides valuable wildlife habitat and good upland recreational opportunities.

The Interior Douglas Fir Zone includes all areas which, on a site in the mid-range of nutrient and moisture conditions (mesic site), will climax in a Douglas fir cover. It occurs between elevations of 450 to approximately 1,400 meters. As shown on Map 5, it dominates the Interior Plateau between Bonaparte Lake and the Marble Range and includes most low-lying lands of the major stream valleys in the Plan Area. The drier valley environments are predominantly grassland with a minor occurrence of Douglas fir and rocky mountain juniper. Here, the dominant climax grass species is bluebunch wheat grass. Open forests adjacent to these grasslands are frequent, and also include lodgepole pine, aspen, white spruce and black cottonwood. At higher and moister elevations, forests become more closed. The understory in the forested areas is dominated by pinegrass and various forbs, although mosses may be prevalent on wetter sites. The present pattern in this vegetation zone is a reflection of grazing activity and fires. Extensive lodgepole pine and aspen forests, for example, tend to denote forest fire areas, as these species are the first to regenerate after fire.

The Ponderosa Pine-Bunchgrass Zone, as shown on Map 5, is found in limited belts along the lower slopes and valley floors of the southern portion of the Fraser River, the Bonaparte River below Loon Lake, and the Bridge River near its confluence with the Fraser. Depending on aspect, it may be found between elevations 250 and 700 meters, and reflects the dry and hot summer climatic conditions of these valley bottoms. It is characterized by a mosaic of treeless, bunchgrass steppes and parkland forest, with ponderosa pine identified as the major climax species. Douglas fir and black cottonwood are found on the moister sites. The shrub layer is often poorly developed, but grasses are numerous with bluebunch wheat grass predominant. As with the Interior Douglas Fir Zone, fire and overgrazing have influenced the present day vegetation patterns within this zone.

Map 5

Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Vegetation Zones
Alpine Tundra
Interior Douglas Fir
Ponderosa Pine, Bunchgrass
Engelman Spruce, Subalpine Fir
NOTE : boundaries are approximate
SOURCE : Biogeoclimatic Zones of B.C.
B.C. Ecological Reserves Committee

SOILS

The plateau lands east of the Marble Range are dominated by Gray Luvisolic soils. These have developed on alkaline glacial till deposits under a moderately dense forest canopy in the Interior Douglas Fir Zone. They are generally well-drained and typically display a thin, grey topsoil layer ("A" horizon) that is relatively poor in organic matter and minerals. The sub-soil ("B" horizon) is clay-rich and blocky and tends to restrict downward water percolation in wet seasons. These soils have generally high forest productivity and are often important summer grazing areas for livestock and wildlife.

Eutric Brunisols represent the dominant soil order in a wide band east of the Fraser Valley that extends from the Plan Area's northern to southern boundaries and includes the Edge Hills and Marble Range. They have developed over alkaline colluvium and volcanic ash, particularly in the Marble Range, and also on the glaciofluvial outwash materials of the plateau. They are associated with both open forests of the Interior Douglas Fir Zone and the lower Engelmann Spruce-Subalpine Fir Zone. The soils have relatively thin, poorly developed surface horizons and a prominent brownish "B" horizon with possible calcium carbonate accumulations. Combined with a normally high alkalinity, these characteristics reduce the value of such soils for agricultural crop production.

Soils of the Chernozemic order dominate the Fraser River valley in a strip extending from Lillooet to the Plan Area's northern boundary. They are found primarily on undissected terrace surfaces along the Fraser, but may also occur in isolated south-facing pockets on the plateau and along other streams where similar circumstances prevail. The Chernozems grade northward from Brown to Dark Brown in response to higher elevations and associated cooler summer temperatures and increased rainfall. They are typically developed on water-lain sands and gravels of the valley systems and on glacial tills of the plateau. Brown Chernozems are found in the Ponderosa Pine-Bunchgrass Zone, while the Dark Brown Chernozems are associated with the open grassland areas of the Interior Douglas Fir Zone on Map 5. These soils are generally well drained, loamy, and have good structure and high alkalinity. Soil horizons of Dark Brown Chernozems are thicker than those of the Brown Chernozems and contain more organic matter. In a natural state they are utilized for native range, but under irrigation will yield agricultural crops. Productivity tends to be limited primarily by moisture deficits during the growing season.

West of the Fraser Valley, the dominant soil patterns reflect the influence of more rugged terrain, coarser parent material, wetter and cooler climate, and the predominance of acidic bedrock. Soils tend to be thinner, more poorly developed and more acidic than their eastern plateau counterparts and are developed under the denser Subalpine Engelmann Spruce-Subalpine Fir Zone. Dystric Brunisols dominate the Camelsfoot and Chilcotin Ranges, and are generally similar to the Eutric Brunisols except for higher acidity and more pronounced removal of minerals from the upper horizon. Humo-Ferric Podzols dominate portions of the Coast Mountain area southeast and northwest of Anderson Lake. They are characterized by a thick, acidic, organic surface litter which is poorly decomposed. Intense removal of carbonates from the soil has left iron, aluminum and soluble organic matter accumulations in the "B" horizon. These soils tend to form the basis of the central interior logging industry. Fertility limitations, stoniness and unfavourable climate and topography restrict their use for agriculture.

The westernmost portions of the Plan Area are dominated by Lithic soils associated with the Alpine Tundra Zone. The soils are typically less than 10 cm in depth, and may contain a mixture of poorly developed Organic and Podzolic soils in association with bedrock outcrops. These areas are largely unproductive for forestry and unsuitable for agriculture, although scattered pockets of deeper, more productive soils may exist at lower elevations. Wildlife and recreation-oriented activities are supported in these areas.

Soils of other orders are to be found in association with the major vegetation zones and areas of "dominant" soils outlined above. Prominent among these are Solonetzic soils, Regosols, Gleysols and Organic soils. Solonetzic soils are saline and are associated with both Chernozems and Luvisols in the Interior Douglas Fir and Ponderosa Pine-Bunchgrass Zones. They present limitations for agriculture and other uses due to salt accumulations in the "B" horizon.

Regosols may be found on terrain subject to frequent natural disturbance, such as floodplains, fluvial fans and steep slopes in all vegetation zones. These soils are weakly-developed, lack distinctive soil horizons and are often unable to sustain high levels of agricultural or forest productivity. They tend to point out areas to be avoided for human settlement.

Gleysols have characteristic mottled horizons reflecting the influence of significant periods of water-logging due to fluctuating water tables. They are generally found in lower-lying areas in all vegetal zones and provide limitations for most human activities due to wetness.

Organic soils are also scattered throughout the Plan Area, occurring in natural depressions and on floodplains where natural drainage is restricted. They support sedges and willow in the plateau environment and are frequent sources of native range and pasture. In mountainous areas, organic soils support fewer trees and shrubs relative to mosses and sedges and have major value as wildlife habitat.

FISH AND WILDLIFE

The Plan Area contains a wide variety of fish and wildlife species. Mountain goat, California bighorn sheep, elk, moose and mule deer constitute the wild ungulate (hoofed) species that may be found. Elk are low in numbers, whereas mule deer and moose are relatively numerous and widespread throughout the Plan Area due to their ability to utilize the diverse summer habitat of the Interior Douglas Fir and Engelmann Spruce-Subalpine Fir Zones. Moose may also be found in lower portions of the Alpine Tundra Zone during summer. During the winter months, mule deer and moose generally migrate to lower elevation areas where snow cover is light. Consequently, most of the deer winter range and much of the better moose winter range lies in the Interior Douglas Fir Zone. Mountain goat and bighorn sheep are prevalent in the Alpine Tundra Zone, and in limited numbers in the Engelmann Spruce-Subalpine Fir zone.

Predatory species within the Plan Area include grizzly bear, black bear, timber wolf, coyote and cougar. Bears are most numerous west of the Fraser River in the higher elevation alpine and subalpine vegetation zones although black bears especially inhabit the entire Plan Area. Wolves and cougars may be found throughout the subalpine areas and in the open forests of the Interior Douglas Fir Zone at lower elevations. Coyotes are distributed throughout the Plan Area in both timbered and grassland environments, excluding alpine and high subalpine areas.

Lynx and bobcat may be found throughout the forested portions of the Plan Area. Weasel, raccoon, badger, skunk and porcupine are also distributed widely, although the greatest species diversity is found in the open portions of the Interior Douglas Fir Zone due to a combination of open lands and forested "edge".

Upland game birds are widely distributed in the Plan Area, and include ptarmigan and grouse, partridge, dove and pheasant. Ruffed grouse is most common in the Interior Douglas Fir Zone, while blue grouse is more common in the Engelmann Spruce Subalpine Fir Zone.

Many species of ducks, as well as geese and swans, utilize the Plan Area during spring and autumn migration stops. Many remain as summer residents. Waterfowl are most numerous on the Bonaparte Plateau during these periods due to the presence of many sloughs and lakes which provide open water conditions in early spring and fall.

Valuable species of sports fish are found in the Plan Area. Rainbow trout are present in most cold water lakes and streams, along with Dolly Varden, char and lake trout. Kokanee may be found in several of the Plan Area lakes.

The smaller, shallow lakes on the southern part of the plateau, which tend to be somewhat saline, do not support fish populations. Map 6 indicates that the majority of fished lakes are in the eastern portion of the Plan Area in the vicinity of Bonaparte Lake.

Significant fish spawning areas are also shown on Map 6. On the plateau, the Bonaparte River is of major importance, whereas in the Coast Mountains, the smaller tributaries entering the Bridge River reservoir, the Yalakom River and Cayoosh Creek are of high significance.

Salmon use certain streams of the Plan Area for migration, spawning and rearing, depending upon quality of habitat, degree of human alteration and species type. Salmon migrate up the Fraser River and enter the Bonaparte, Seton, Bridge and Yalakom basins. Important spawning areas are the mouth of the Bonaparte River, the Yalakom River up to Beaver Dam Flats, the lower Seton River, and Portage Creek. Seton Lake is an important salmon rearing area (Map 6). Hatched salmon remain in freshwater for approximately one year prior to descending the Fraser to the Pacific Ocean. Adults return to the freshwater environment of their origin after 2-5 years, depending on species, to complete their life cycle.

EXISTING LAND USE

HISTORICAL PERSPECTIVE

From the earliest days, the population, settlement patterns and economy of the Clinton sub-region have been strongly influenced by the natural resource base. Prior to the discovery of gold along the Fraser River, economic activity was limited to trapping and the fur trade with the Interior Salish people, the traditional inhabitants of the Plan Area. With the discovery of gold in 1857, thousands of miners made their way to interior British Columbia. To serve this influx, numerous small communities became established, supplying horses, food, accomodation and general provisions. Lillooet functioned as the terminus of a steamer-wagon route from Harrison Lake to the Interior, while Clinton flourished as the junction of wagon roads from Cache Creek and Lillooet.

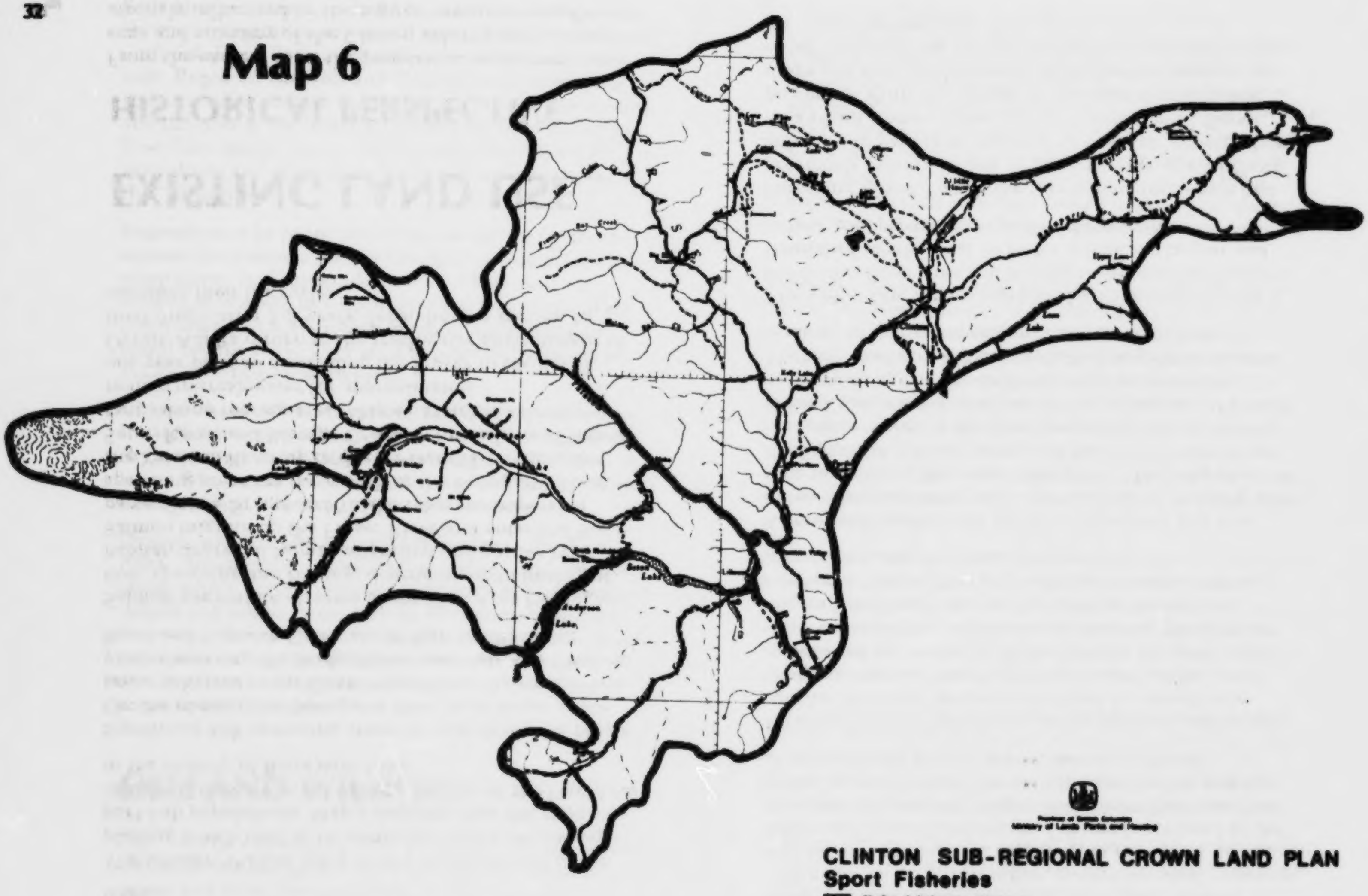
Settlement soon expanded to valley bottoms and an agricultural economy became established to capitalize on ready markets within the mining camps and the newly established communities. By the 1870's, the gold rush was over and the area population declined. While most miners left, some remained to settle as farmers and ranchers. This further expanded and solidified the agricultural industry that had developed.

A renewed impetus was given to settlement and economic development with the advent of railway construction during the years 1880-1918. The completion of the Squamish-Lillooet section of the P.G.E. in 1915, particularly, assisted in the resurgence of economic activity in the Clinton sub-region, as did the expansion of a road network along the Fraser River in the early 1900's. The improved accessibility permitted large-scale homesteading, as well as expansion of the cattle industry.

The 1930's saw the resurgence of gold mining activity in the Bridge River area and mining towns such as Bralorne flourished in what was to be for a time the largest and richest gold producing region in the province.

Following World War II, the forest industry, which had previously catered largely to local markets, grew in both volume and variety in response to post-war construction. As a result, communities such as Clinton and Lillooet prospered. With the advent of widespread automobile usage and improved transportation routes, tourism associated with hunting and fishing further expanded settlement and the economy of the area.

Map 6



Province of British Columbia
Ministry of Lands, Parks and Housing

CLINTON SUB-REGIONAL CROWN LAND PLAN
Sport Fisheries

- fished lake or stream
- spawning stream
- salmon rearing area
- salmon spawning stream

SOURCES: Fish & Wildlife Branch, Ministry of the Environment (Regional Office)
Canada Fisheries & Oceans

By 1961, total population in the Plan Area had reached 5,600, most of whom resided in the three main communities of Lillooet, Bralorne and Clinton. The remainder lived in smaller communities located along the transportation routes or on dispersed farms or ranches. About one-fifth of the population were Native Canadians who resided on Indian Reserves.

During the next ten years (1961-71), however, with the phasing out of the mines in the Bralorne area and, to a lesser degree, the reduction of Clinton as a lumber milling centre, the area's population declined. Only the community of Lillooet showed any trend towards stable growth. At present, the Clinton sub-region remains a sparsely populated, predominantly rural area (population 6,600) whose settlement patterns, economic base and prospects for growth remain strongly associated with the natural resource base.

The rich history of the Clinton sub-region is reflected on Map 7. Illustrated are some of the 300 known archaeological sites located in the Plan Area. As is evident on the map, most are situated along rivers and lakes which provided both a source of food and transportation for the aboriginal residents. The largest concentrations of archaeological sites occur along the Fraser River in the Lillooet area and on the shores of Anderson and Seton Lakes. Two sites in the western portion of the Plan Area, however, are of particular interest. At the eastern end of Seton Lake is located the largest pit house village in the Plan Area, and across the Seton River from this site is found the largest known and best preserved pictograph panel in the interior of British Columbia. In recognition of their significance and potential for interpretive presentation, both have been designated as archaeological sites by the province.

Numerous historic features reflecting early exploration, the gold rush and more recent settlement history are also located in the Plan Area. Fur brigade and gold rush trails are still in evidence. Of these, the most significant are those used during the gold rushes of 1858 and later years, including the Harrison-Lillooet Route and the Cariboo Wagon Road. The first rail bed in the province, located at Seton Portage, is preserved as an historic park.

Several communities contain noteworthy historic buildings or churches. In the northwestern part of the Plan Area, these communities include Kelly Lake, 42 Mile Creek, Clinton and 70 Mile House on the Cariboo Road. In the southern and western portions (west of the Fraser), Lillooet, Seton Portage and Cayoosh have similar attributes. The town of Bralorne is of considerable historic interest as a 1930's company mining town which has remained virtually intact.

PRESENT LAND USE PATTERN

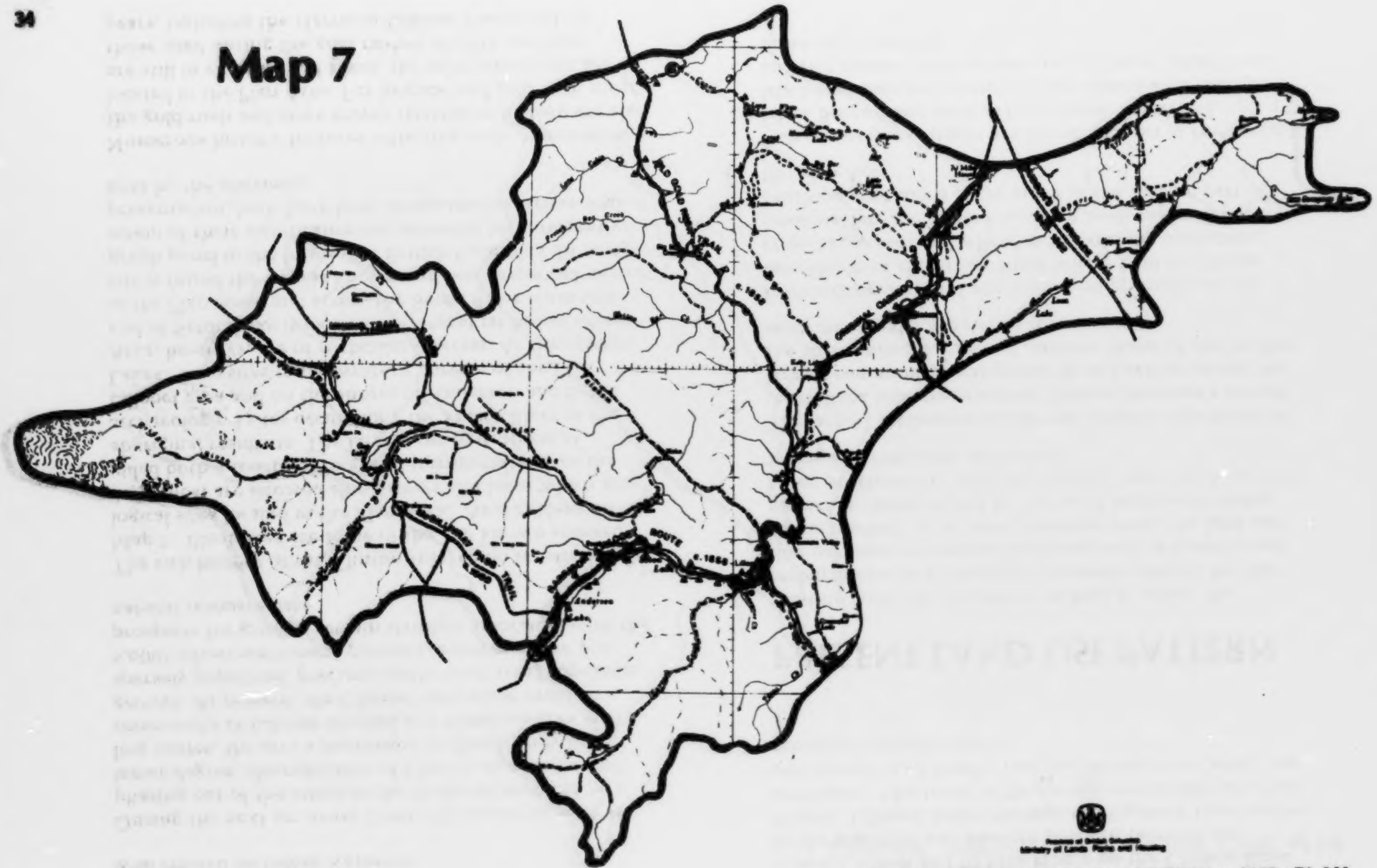
Existing land uses, as shown on Map 8, reflect the resource base and associated economic activity. In addition to resource-oriented land uses such as forestry and grazing, which occur over extensive areas, the land use pattern is characterized by scattered settlement nodes, farm settlement, and recreation uses such as cottaging and fish camp operations.

The largest settlement is Lillooet, which is dependent on centralized forestry practices. Clinton, the area's second largest community, acts primarily as a service center for the surrounding farms and ranches. Many of the smaller settlement nodes are native communities.

Intensive agricultural activity occurs primarily on the benchlands of the Fraser River where field and forage crops are grown and where most ranching operation headquarters are located. Grazing lands associated with ranching operations cover much of the eastern part of the Plan Area.

Fish camps and cottages are found on most of the major lakes. Some lakes, such as Gun, Loon, Eagan and Machete Lakes are extensively developed with cottages and fish camps. Development around most other lakes, however, is limited.

Map 7



CLINTON SUB-REGIONAL CROWN LAND PLAN
Heritage Resources

- ○ historic feature
- — historic trail
- ▲ known archeological site or feature

SOURCE: Heritage Conservation Branch
Ministry of the Prov. Secretary

TRANSPORTATION AND UTILITIES NETWORK

As indicated on Map 8, a rather extensive road network is found within the Plan Area. This system was developed largely in response to resource extraction. Along with highways and secondary roads which serve the area residents, forestry roads and numerous four-wheel drive trails— largely old logging roads— provide access to remote areas.

East of Highway 97, access is generally good and most areas and lakes on the Bonaparte Plateau can be reached by automobile. West of Highway 97, roads to the north of Gold Bridge and through the Yalakom provide access to remote mountain country which offer hiking and hunting opportunities. Fairly direct access from the Lower Mainland to the Lillooet Area is provided by the Duffey Lake road.

Hydro-electric transmission lines bisect the Plan Area in a north-south manner as illustrated on Map 9, and include two 500 kv lines and one 230 kv line. These lines transmit power from northern British Columbia primarily to the Lower Mainland and southern interior population centres. The Kelly Lake sub-station is a major node within this transmission system. Locally generated power originates from two powerhouses on Seton Lake, utilizing an underground flow diversion from Carpenter Lake, and a power house on the Fraser River using water diverted from Seton Lake.

Currently the B.C. Hydro and Power Authority is investigating alternative electrical energy transmission routes from potential hydro projects on the Stikine, Iskut and Liard Rivers. The route options under consideration pass through the Clinton Plan Area and include new corridors in the western portion remote from the existing corridor. Although not scheduled for completion until the 1990's, the new routes will have significant impacts on wildlife and recreation values.

In addition to hydroelectric transmission corridors, three major oil and gas pipelines cross the Bonaparte Plateau. These lines transmit crude oil and natural gas from northern British Columbia to interior and southern population centres.

LAND STATUS

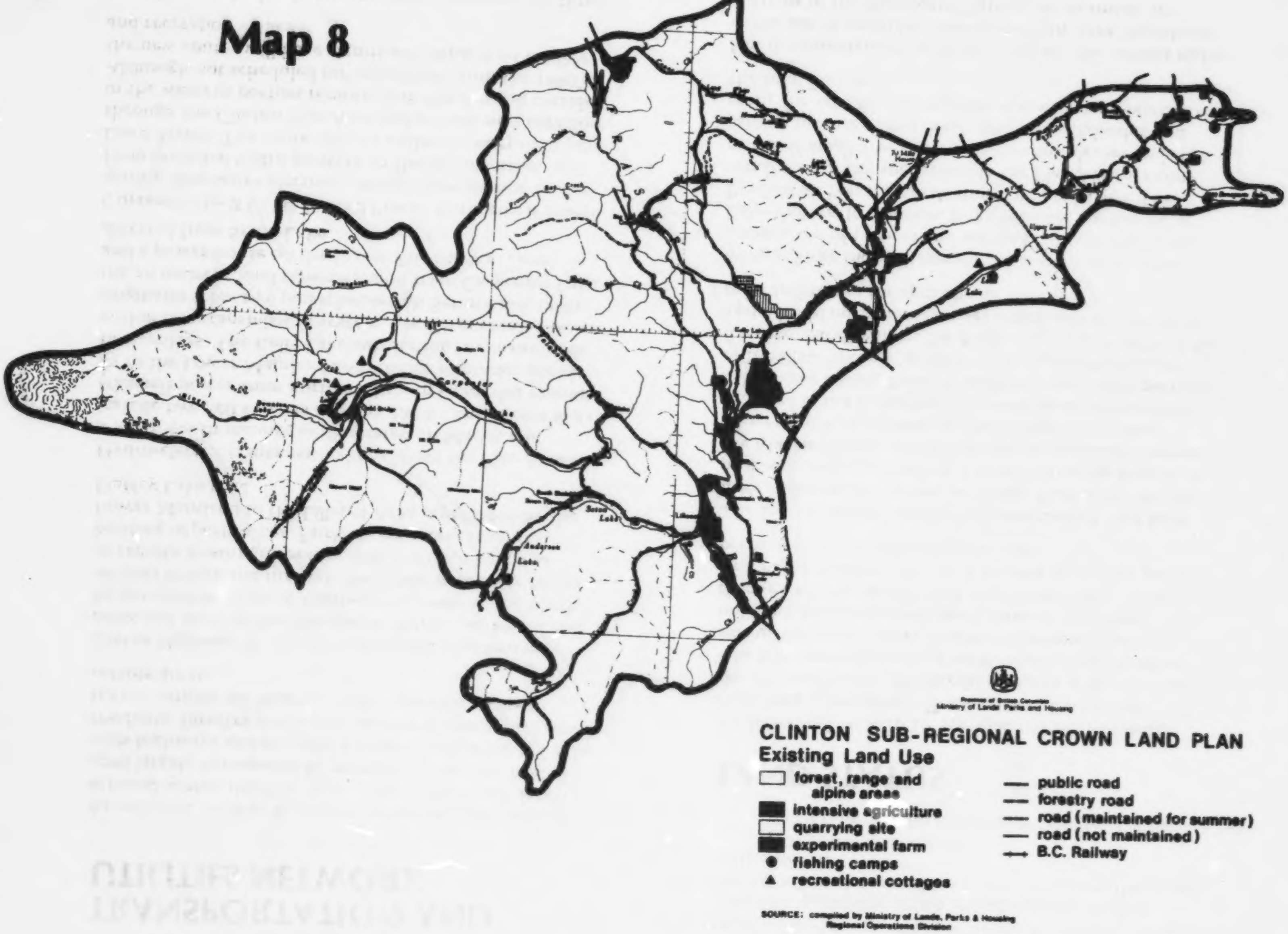
As illustrated on Map 10, the majority of the Clinton Plan Area is comprised of unalienated Crown land. Of the alienated lands, the largest category is private land which is concentrated in a north-south band on either side of the Fraser River. Scattered pockets of private holdings are also located along streams and lakes throughout the eastern half of the Plan Area. Private land in the western portion is located in isolated pockets bordering Anderson and Seton Lakes.

The second largest category is comprised of land held under reserve for various purposes. Such lands include proposed energy corridors, a large quarrying reserve in the Marble Range, and numerous recreational reserves adjacent to several lakes on the Bonaparte Plateau. Included in the foregoing is an ecological reserve established near Chasm Park. In addition, significant portions of the Plan Area are subject to the Agricultural Land Reserve. Lands within the A.L.R. can only be utilized for agricultural operations or uses which will not preclude their future use for agriculture.

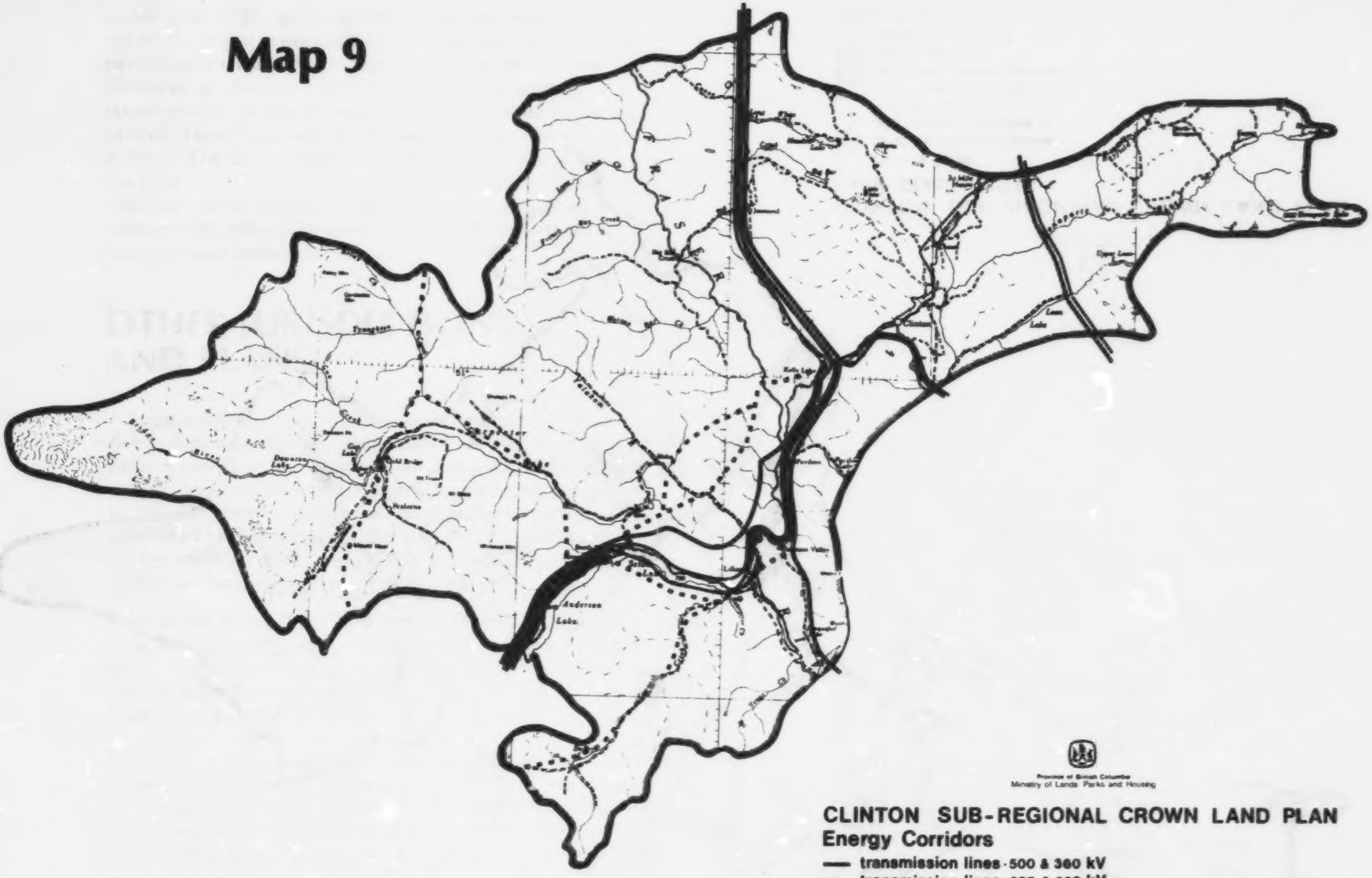
Several large Indian Reserves are located around the community of Lillooet and within Fountain and Three Lake Valleys. In addition, large reserves are located at Pavilion and on the north shore of Seton Lake. The remainder of the alienations in the Plan Area are comprised of small areas held under various leases and applications to lease or purchase, and land subdivided and ready for sale. Such categories are very small relative to the total Plan Area.

Not documented on the status map are the various rights to the use of resources within the Plan Area. Significant portions of the Bonaparte Plateau, for example, are

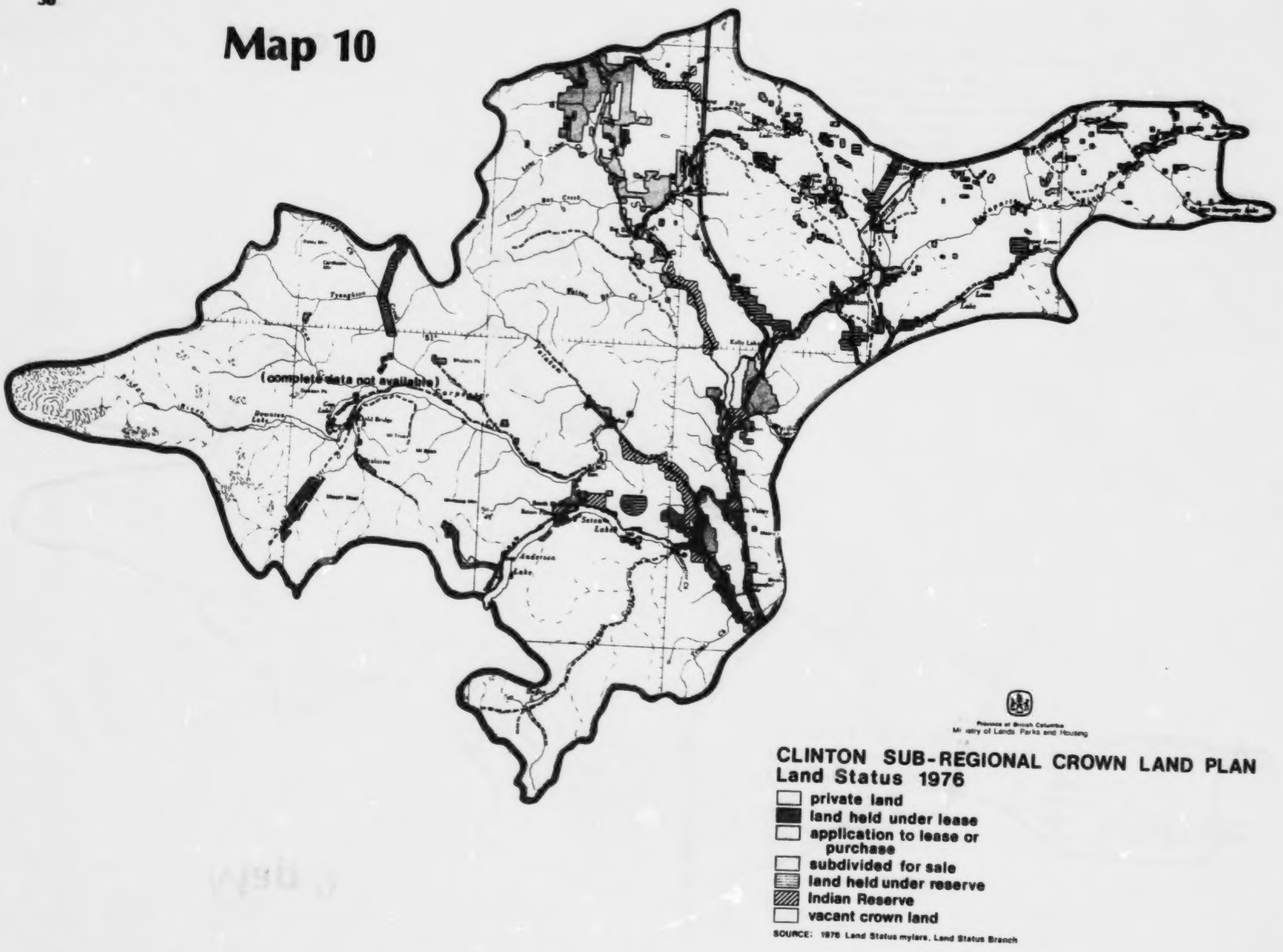
Map 8


Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Existing Land Use
forest, range and alpine areas
intensive agriculture
quarrying site
experimental farm
fishing camps
recreational cottages
public road
forestry road
road (maintained for summer)
road (not maintained)
B.C. Railway
SOURCE: compiled by Ministry of Lands, Parks & Housing Regional Operations Division

Map 9


Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Energy Corridors
transmission lines · 500 & 360 kV
transmission lines · 287 & 230 kV
Westcoast Transmission pipeline
Western Pacific Products and Crude Oil pipeline
proposed 500 kV transmission lines
SOURCE: Compiled by Ministry of Lands, Parks and Housing Regional Operations Division

Map 10


(complete data not available)
Kelly Lake
Seton Lake
Anderson Lake
Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Land Status 1976
private land
land held under lease
application to lease or purchase
subdivided for sale
land held under reserve
Indian Reserve
vacant crown land
SOURCE: 1976 Land Status mylars, Land Status Branch

under grazing licence or permit. Also, the water resources of the major creeks and streams within the Plan Area, particularly within the Bonaparte and Pavilion Water Districts, are heavily committed. Extensive mineral claims and placer leases occur throughout the Plan Area, as well. These are documented on the map of mining activity. The above rights which have been allocated to the land and the resources on the land must be recognized as commitments that will play a major role in determining future land and resource allocation and management decisions.

OTHER JURISDICTIONS AND PLANS

A large number of government agencies have administrative and/or management responsibilities over land and resources within the Clinton Plan Area. Of these agencies, many have been or are pursuing planning programs to assist in their respective decision-making responsibilities. Map 11 illustrates the complexity of jurisdictions within the Plan Area, while Table 1 summarizes some of the more significant plans or proposals.

Considered in total, the land base addressed by the various plans and proposals covers the entire Clinton Plan Area. Significant overlap of planning initiatives occurs in the more productive northeast quadrant of the Clinton Land Management District.

All plans and proposals either have resulted or will result in the land base being committed to specific forms of use or management. Such commitments are secured through legislative means such as Orders-in-Council, as is the case for Provincial Forests, or as a result of the expenditure of significant funds for capital improvements, as in the case of Co-ordinated Resource Management Plans on Crown Range.

TABLE 1

SUMMARY
OF SIGNIFICANT PLANS/PROPOSALS
OF GOVERNMENT AGENCIES WITHIN THE CLINTON PLAN AREA

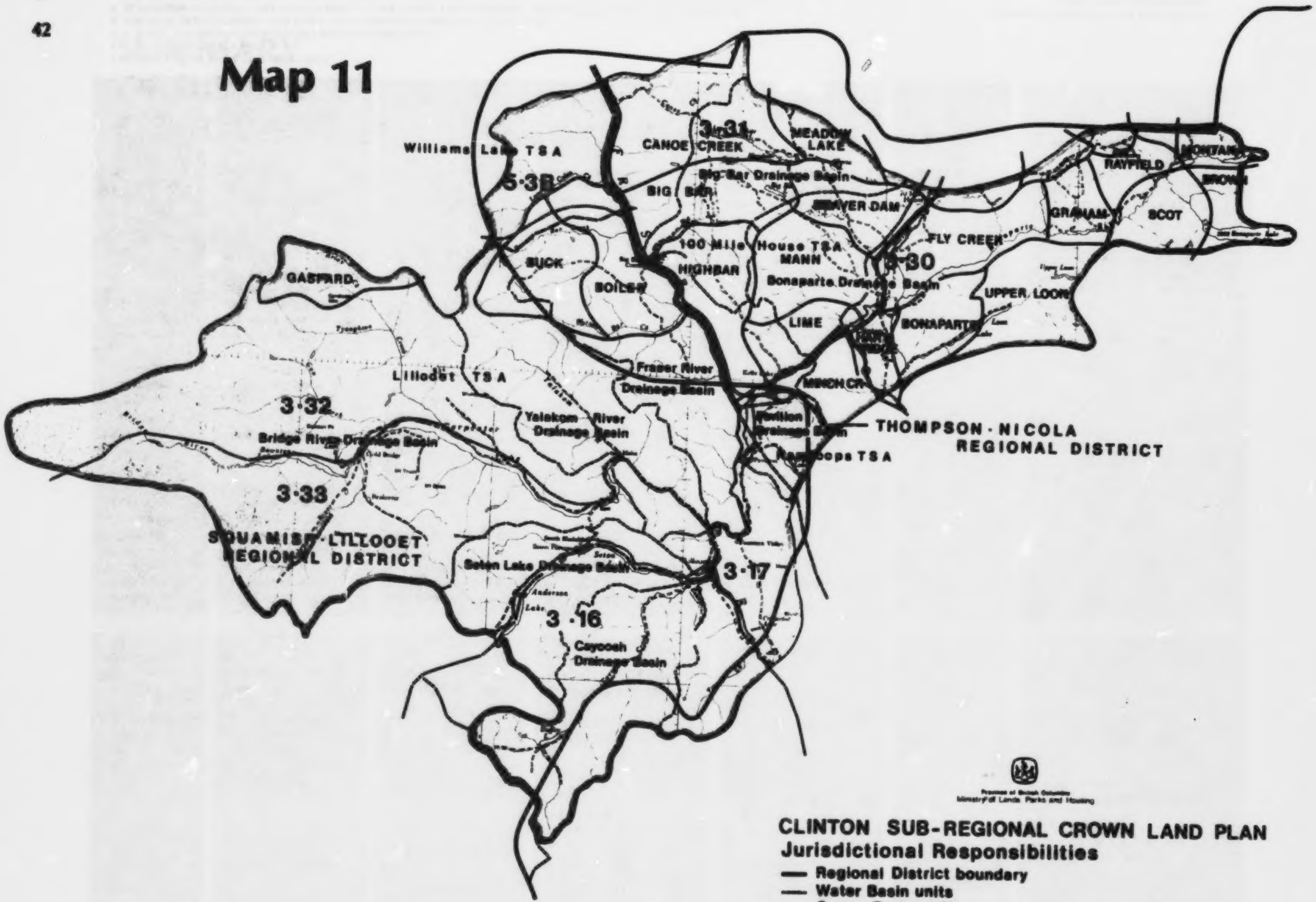
[redacted]

[redacted]

1. P.S.Y.U. PUBLIC SUSTAINED YIELD UNIT
2. T.S.A. TIMBER SUPPLY AREA
3. C.R.M.P. CO-ORDINATED RESOURCE MANAGEMENT PLAN
4. A.R.D.S.A. AGRICULTURAL AND RURAL DEVELOPMENT SUBSIDIARY AGREEMENT
5. SETTLEMENT STRATEGIES ARE IN PROGRESS (i.e., HAT CREEK AND ENVIRONS OFFICIAL SETTLEMENT PLAN), AS WELL AS THE DEVELOPMENT OF SPECIAL AREA POLICIES INCLUDING FRINGE AREA POLICIES AND LAKESIDE DEVELOPMENT POLICIES.

SOURCE: COMPILED BY THE MINISTRY OF LANDS, PARKS AND HOUSING

Map 11



CLINTON SUB-REGIONAL CROWN LAND PLAN

Jurisdictional Responsibilities

- Regional District boundary
- Water Basin units
- Crown Range units
- Timber Supply Area boundary
- Wildlife Management units

SOURCE: Administrative Boundary Maps of B.C. Surveys and Mapping Branch, 1979

ECONOMIC ACTIVITY

AGRICULTURE

Historical Overview

Primary agriculture in the Clinton Plan Area began with the gold rush of 1857-1858. With the influx of prospectors, enterprising individuals recognized the potential of the grassland and began raising beef cattle. The cattle industry grew quickly as a consequence. Although some attempts were made by farmers to diversify agricultural activity into production of crops such as fruits and vegetables prior to W.W.I, these activities were short-lived.

The post-World War I period saw renewed interest in horticultural activity, and in the Lillooet area, tomato and potato production became dominant. However, by the end of the 1940's, a shortage of field labour, competition from imported produce, and more favourable cattle prices resulted in the abandonment of this truck farming activity in favour of cattle ranching and associated forage production. Cattle ranching currently remains the main agricultural activity in the Plan Area and the primary source of farm income.

Agricultural Activity

Agriculture is currently dominated by beef cow-calf and cow-yearling enterprises. Both require the maintenance of a standing herd of female animals. In the former, feeder calves are sold at 7-8 months of age, and in the latter, calves are wintered over, turned back out on the range as yearlings, and sold at approximately 18 months of age the following fall. This type of cattle operation is very dependent on the extensive grazing resources within the Plan Area.

The Clinton Plan Area is situated within the approximately 1.7 million hectares of Crown range land that make up the Bridge Lake, Green Lake/North Bonaparte, Lillooet, and Clinton and District stock ranges. These stock ranges contain approximately 23 percent of the total Crown range lands in the Thompson and Cariboo agriculture regions. Of this total range, only 29.0 percent is usable for grazing (see Table 2) because of permanent factors such as topography, bedrock to surface depth or possibly alterable factors such as insufficient stock watering sites, inaccessibility, and tree canopy closure. The open range, which is nearly all private or leased, is in poor/fair condition as a result of a long history of overstocking and improper use. The current trend, however, is generally toward improvement in range quality. Although the proportion of usable range is only 29.0 percent of the total, it represents some of the best Crown range land in British Columbia.

As Table 2 indicates, the major proportion of usable Crown range is on forested Crown range land. Opportunities for range enhancement exist through appropriate forest management practices. These include selective thinning to avoid overgrowth; post-harvest treatment such as forage seedbed preparation and seeding to forage species; or utilization of a system of rotating clear-cuts. The addition of new forage through such management practices could result in an increased number of A.U.M.'s[1] in the Plan Area and corresponding increases in herd size.

In 1976, there were approximately 14,000 head of cattle in the Plan Area, or approximately 2.5 percent of the provincial total. It is believed that this figure has not changed substantially since 1976. Farm cash receipts are estimated to be $2.6 million annually.[2]

Other agricultural activities such as horticulture and the production of hay for sale are not significant within the

1. Animal Unit Month.
2. Provincial farm cash receipts from sale of cattle and calves were $93 million in 1978, according to the B.C. *Agriculture Statistics Yearbook, 1978*.

TABLE 2

SUMMARY
OF CROWN RANGE CHARACTERISTICS
CLINTON PLAN AREA[1]

[redacted]	[redacted]				[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total Range	72.8	134.6	288.8	9.3	505.5	1,236.7	1,742.2	71,522
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

NOTES: 1. The Clinton Plan Area covers only 75 percent of the area encompassed by the four aforementioned Stock Ranges. Figures listed are for the respective stock range rather than the specific portion of each range laying within the Plan Area boundaries.
2. Brown Range Unit
3. Rayfield, Pressy, Tincup and Scott Range Units
4. Coulsen, Bullock, Meadow Lake, Canoe Creek, Big Bar, Beaver Dam, Fly Creek, Upper Loon, Bonaparte, Hart Ridge, Minch Creek, Mann and Highbar Range Units

SOURCE: Select Standing Committee on Agriculture, *Rangelands of British Columbia*, 1979.

Plan Area. This is due to the scattered nature of arable crop land and the comparative advantage of locations elsewhere in the province for these purposes.

Principal field crops are alfalfa (mainly on the benchlands of the Fraser River) and other forage crops for use in cattle ranching operations. These do not add value to agricultural output since they are mainly consumed as livestock forage on the producing farm.

Farm Capital and Employment

Agriculture in the Plan Area is following a characteristic pattern exhibited in the rest of Canada, whereby the number of persons engaged in farming and ranching is declining, while farm size and capital continue to rise. Table 3 indicates that, although the total number of census farms in the Plan Area declined from eighty-two in 1971 to sixty-nine in 1976, real farm capital increased from $21,736,612 to $30,953,635 (1976 dollars) during the same period. The major reasons for the decline in the total number of farm operations are low beef prices and increasing costs of production.

Within the Plan Area, incomes from many ranching operations tend to be supplemented by income earned at other occupations such as forestry and construction. Currently an average of 160 days per farm operator is spent on non-farm occupations which supplement farm income. Since most of these off-farm days are accounted for by the small operators (those with farms less than 759 acres in size and comprising 69 percent of all farms), it can be assumed that 5-7 work-months are spent off the farm/ranch by at least half the operators. Farms and ranches within the Plan Area do, however, provide a significant amount of employment even though much is of a seasonal or part-time nature.

FORESTRY

Historical Overview

Logging and sawmilling activity has occurred in the Plan Area for nearly a century. Significant stands of Douglas fir were readily accessible and provided the lumber for local settlers and railway ties for the Pacific Great Eastern (now B.C. Rail) railroad. Completion of this rail line to Vancouver in the 1950's substantially improved access to outside markets, resulting in rapid growth in the forest industry over the next twenty years.

During the 1950's and 1960's, numerous small portable sawmills were established along the railway line close to the most accessible stands of timber. The introduction of a close utilization policy designed to foster a pulp and paper industry dependent on sawmill by-products, however, led to the closure of many of these smaller portable mills. They were essentially replaced by fewer but larger sawmilling complexes capable of handling smaller diameter logs. Today, only a few portable sawmills remain in the Plan Area and their contribution to annual lumber production in the Plan Area is minimal.

Logging Activity

The volume of timber scaled[1] in the Plan Area in recent years (except for 1974 and 1975) has fluctuated between 540,000 cubic meters and 680,000 cubic meters. Low harvests which occurred in 1974 and 1975 were common throughout the province, and were symptomatic of a worldwide slump in the lumber market. The Clinton Plan Area supports an approximated[2] allowable annual cut of 1,161,000 cubic meters, or 410,000 cunits. Of this, approximately 952,000 cubic meters, 82 percent, is presently committed to various mills both within and outside the Plan Area.

1. Measured as logs entering the mill.
2. Derived from Public Sustained Yield Areas which are only partially contained within the Plan Area.

TABLE 3

MAJOR AGRICULTURAL STATISTICS (1976) CLINTON PLAN AREA (a) (b)

	1971	1976
[redacted]	[redacted]	[redacted]
[redacted]		[redacted]
[redacted]		[redacted]
[redacted]		[redacted]
[redacted]		[redacted]
[redacted]		[redacted]
[redacted]	[redacted]	[redacted]

(a) Source: 1976 Census of Agriculture: Catalogue 96 - 818.

(b) Estimates were derived from Lillooet Subdivision A and Thompson-Okanagan Subdivision D. Census. However, Thompson-Okanagan Subdivision D estimates are multiplied by a factor of 0.40 to obtain estimate of area in the Clinton Plan Area.

The Ministry of Forests, in its regional analysis of available timber supply, suggests that future harvesting of timber in the Plan Area at a rate equal to the present commitment level may not be possible beyond another ten to twenty years. Although adequate timber supplies do exist in the Lillooet Area, long hauling distances and high costs of access reduce the feasibility of harvesting these large but remote blocks of mature timber. In the area east of the Fraser River (contained in the 100 Mile House TSA) the timber supply shortage is more critical and the Ministry of Forests anticipates that, after 1990, timber harvesting may have to drop to 90 percent of present commitment levels.

Milling Activity

The Plan Area currently contains two large wood processing operations which account for most of the lumber production in the Plan Area. These are the Evans Products Co. Ltd. sawmill in Lillooet and the Ainsworth Lumber Co. Ltd. sawmill in Chasm. Evans Products produces dimension lumber and railway ties with wood chips as a by-product. The Chasm mill primarily produces studs. The species processed include Douglas fir, lodgepole pine and western white spruce. According to the *1979 Directory of the Forest Products Industry*, the annual capacity of the Lillooet and Chasm sawmills is 62 million and 50 million board feet (fbm), respectively. Assuming an average conversion factor is 575 fbm per cunit, the annual wood requirements for both these mills totals 551,000 cubic meters (195,000 cunits), an amount slightly below the average annual harvest in the Plan Area.

Evans Products Co. Ltd. has recently completed a $10 million expansion of its Lillooet operation. This included the construction of a veneer plant, the only one in the Plan Area. There are no plywood mills in the Plan Area, nor are there plans for any in the foreseeable future.

The closest pulp and paper mill is the Kraft-Weyerhaeuser Canada Ltd. mill located in Kamloops. This mill has been in production since 1966. Chips produced from the sawmills in the Plan Area are surplus to the needs of the Kamloops pulp and paper mill and are currently being shipped to Cariboo Pulp and Paper in Quesnel and Fibreco in Vancouver. There is no indication at present of a pulp mill locating in or near the Plan Area.

Employment

An estimated 680 persons, or approximately 25 percent of the area's labour force, were employed in the forest industry in 1979. Logging accounted for 210 jobs, and sawmilling 470. The veneer plant in Lillooet will employ an additional 50 persons in the mill and create employment for 40 loggers.

Employment in the forest industry declined during the 1960's and early 1970's, as many small mill operations closed down. Now that most of these are no longer in operation, it is anticipated that employment will stabilize at current levels although year-to-year fluctuations will continue to occur in response to market conditions.

OUTDOOR RECREATION AND TOURISM

Historical Overview

The historical pattern of outdoor recreation and tourism in the Clinton Plan Area is similar to that experienced elsewhere in the province. Initially, local settlers accounted for most of the outdoor recreational activity. As accessibility to the Plan Area improved, non-residents visited in increasing numbers, primarily to hunt and fish. In response to increased hunting, guiding became an important activity until the late 1940's. However, with the development of logging roads which improved vehicular access to wildlife populations and the provision of more efficient fire protection by the Forest Service which reduced the area of new burns (a source of ungulate forage), the guiding industry experienced a decline.

Since the 1960's, the range of recreational activities has broadened to include camping, boating, swimming, hiking, mountaineering, cross-country skiing, horseback riding and river recreation activities (such as kayaking and river rafting). This growth has been complemented by the development of privately operated tourist facilities, provincial parks, Forest Service recreation sites and trails, and recreational cottages.

Sport Fishing and Hunting Activity

Sport fishing is currently the most popular recreational activity in the Plan Area. This activity occurs predominantly on the Bonaparte Plateau where numerous lakes offering excellent fishing opportunities are relatively accessible due to the existence of many logging roads. The principal game fish is rainbow trout. Several lakes in the area (Loon, Eagan and Bonaparte) provide sufficient fishing activity to support private fishing camps. Loon Lake, for example, has 10 fishing camps offering 158 units of accomodation.

In addition to the lakes on the Plateau, both Seton and Anderson Lakes support moderate fishing activity. Smaller remote lakes such as Spruce Lake provide high quality wilderness fishing.

At present, the area sustains an estimated 100,000 to 150,000 angler days annually. Total annual expenditure by fishermen within the Plan Area is in the order of two million dollars. Most sports fishermen originate outside the Plan Area, many of them coming from the Lower Mainland, Alberta and the United States.

Hunting is also a popular recreational activity in the Plan Area, accounting for approximately 40,000 hunting days annually. Most hunters seek deer and moose, although black bear and upland game birds are also harvested. Hunting occurs throughout the Plan Area and is particularly popular on the Bonaparte Plateau. In addition, hunting for mountain sheep and goat takes place in the Coast Range.

Total expenditure within the Plan Area by both non-British Columbia hunters and resident hunters is estimated to be approximately $1.5 million annually. Non-resident hunters are required by law to be accompanied by a licenced guide when pursuing big game species.

General Outdoor Recreation

The number of people participating in recreational activities other than sport fishing and hunting is not well documented, but is believed to be considerable. Water-oriented recreational activities occur on most of the rivers and larger lakes within the Plan Area. Mountaineering, hiking, and backpacking are popular extensive recreational activities taking place largely in the Coast Mountain region.

Automobile-oriented tourist travel through the Plan Area to capitalize on historic, scenic and recreational opportunities has become a significant activity in recent years. Statistics indicate that 43,000 visitor parties undertook the scenic drive between Lillooet and Cache Creek between May and October, 1979. The unimproved Duffey Lake Road was travelled by 18,000 visitor parties during the same period. It is anticipated that such tourist travel through the Clinton Plan Area will increase as a result of Tourism B.C.'s promotion of the "Nugget Loop". This route is a circular scenic drive which begins and ends in Vancouver and links the communities of Vancouver, Whistler, Pemberton, Lillooet, Lytton and Hope. Lillooet, located at the apex of this tour, will likely benefit significantly in terms of tourist-related facilities and employment.

Tourist facilities, although limited at present, are concentrated in Lillooet and Clinton, and largely take the form of motel accomodation. In addition, fish camps are located on many of the lakes within the Plan Area.

Provincial Parks

The Plan Area contains six Class "A" Provincial Parks, of which five are located east of the Fraser River. Four of these offer overnight camping facilities for a total of 117 campsites. Only one (Big Bar Lake) is relatively developed, offering a wide range of recreation opportunities (fishing, swimming, boating and hiking). Total annual overnight visitation for all parks has fluctuated between 16,000 and 22,000 camper nights during the last seven years. Although park use within the Plan Area has increased steadily during the last four years, the growth in park use is most dramatic at the recently developed Green Lake Recreation Area, located just north of the Plan boundary. This suggests that Green Lake is attracting visitors who otherwise might have used camp-sites located within the study area. The most popular parks in the Plan Area are Big Bar Lake, Marble Canyon and Loon Lake.

In addition to provincial parks, there is a significant number of Forest Service recreation campsites. These offer a semi-rustic camping experience, and are generally located on the more remote lakes.

MINING

Historical Overview

Discovery of placer gold in the water-laid gravels of the lower Fraser River prompted an influx of gold-seekers to British Columbia in the early months of 1857. By year end, many thousands more were participating in the Cariboo Gold Rush, working their way up the Fraser River and its tributaries within the Clinton area and other interior portions of the province. Output from placer mines lasted until the 1880's, after which emphasis shifted to lode minerals. The first lode gold claims were staked in the Bridge River area west of Lillooet. These claims later became the Bralorne and Pioneer mines.

The Pioneer mine operated from 1925 to 1960, while Bralorne functioned continuously from 1931 to 1971, when economically extractable gold deposits were exhausted. At the peak of mining activity, these mines were the richest in the province, employing 1,000 men and yielding a total of $135 million in gold.

The search for gold led to the discovery of many other important minerals. These included deposits of mercury, molybdenum, limestone, and jade. To date, however, commercial yields from these deposits have been sporadic and limited.

Mining Activity

With the closure of the Bralorne mine in 1971, mineral production of economic significance within the Clinton Plan Area was dramatically reduced. Production figures for the late 1970's, given below, reflect this reduction—

- limited placer gold production: less than $10,000 (1977-1978)
- lode gold production resulting from the Bralorne mine "clean-up": $106,000 (1977-1978)
- small-scale removal of jade from the creek beds of the Yalakom and Bridge Rivers: (revenues not documented)
- limestone removal near Pavilion: $570,000 (1977-1978)
- sand, gravel, rubble and rip-rap removal north of Clinton by B.C. Rail for rail bed purposes: $3,097,000 (1977-1978).

Tables 4 and 5 provide a summary of production for the Clinton and Lillooet mining divisions. All activity occurred within the Clinton Plan Area.

Although current mining production is limited, the Plan Area displays moderate to high mineral potential. Map 12, which illustrates the significant extent of mineral claims and placer leases throughout the Plan Area is evidence of this potential. Moreover, the Ministry of Energy, Mines and Petroleum Resources advises that this

TABLE 4

PRODUCTION OF STRUCTURAL MATERIALS BY MINING DIVISION, 1977-1979, AND TOTAL TO DATE

DIVISION	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Clinton[1]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Lillooet	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

TABLE 5

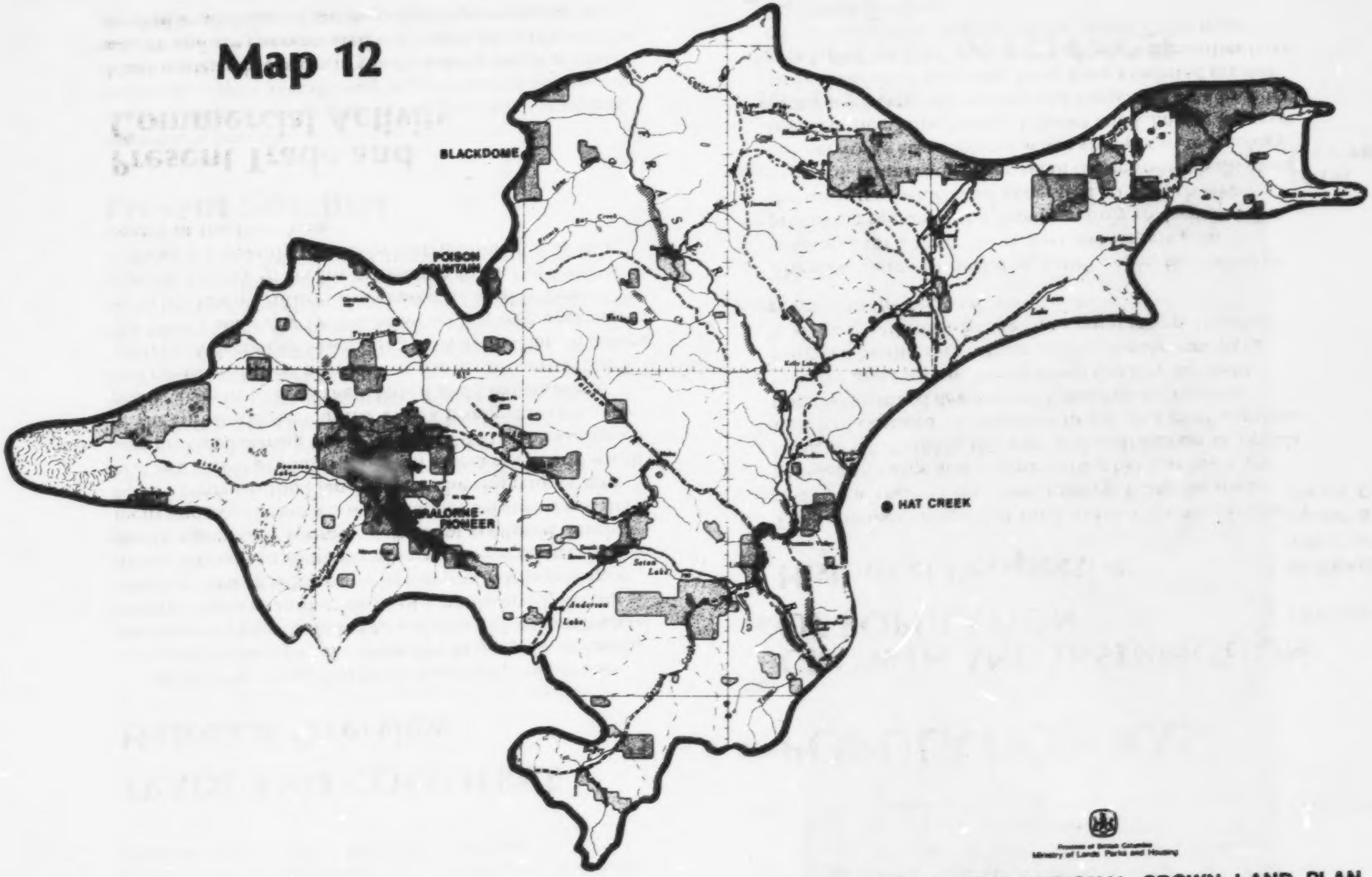
MINERAL PRODUCTION BY MINING DIVISION, 1977-1979, AND TOTAL TO DATE

DIVISION	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Clinton[1]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Lillooet	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

SOURCE: Energy, Mines and Petroleum Resources Annual Report, 1979.

1. Figure is for the Clinton mining division of which only 25% (approximate) is within the Plan Area.
2. This Figure includes value of Lode Gold Mined.

Map 12



Province of British Columbia
Ministry of Lands, Parks and Housing

CLINTON SUB-REGIONAL CROWN LAND PLAN

Mining Activity

- mineral claims (all types)
- placer leases
- ● mining proposals

SOURCE: Ministry of Energy, Mines and Petroleum Resources

potential is being actively pursued in response to increasing world metal and mineral prices through very active exploration and evaluation.

Production consideration by industry is being given to Black Dome (gold, silver) and Poison Mountain (gold, silver, copper and molybdenum). In addition, reactivation of the Bralorne-Pioneer mines is in progress.

TRADE AND COMMERCE

Historical Overview

Trade and service establishments were initially established in the Plan Area to serve the basic needs of local miners and ranchers in the late 1800's. Most commercial activity centered in the towns of Clinton and Lillooet, which served as stopping points on the Cariboo Wagon Road. Growth in commercial services was relatively slow due to a generally sporadic pattern of economic development and population growth. Lillooet became the distribution centre in the Plan Area for the shipping of mineral and forest products after rail access north and south was provided during the period 1915-1919. Development of the forest industry in the 1950's brought further economic growth to both the Clinton and Lillooet areas, and confirmed their positions as the main commercial centres. A decline in sawmilling activity in Clinton during the 1960's and early 1970's, however, created uncertainty as to the town's future, and caused its level of commercial activity to decline in relation to that of Lillooet. Lillooet is currently the major distribution and service centre of the Plan Area.

Present Trade and Commercial Activity

Most trade and services in the Plan Area are of a local nature and are concentrated in Clinton and Lillooet. The level of availability of goods and services is typical of communities with populations from 1,000 to 2,500 persons, which generally offer only those services for which there is a constant demand. Many retail goods and most professional, administrative and entertainment services are not available in the Plan Area. Residents desiring them must travel to either Kamloops or Williams Lake. In recent years, there has been an increase in the number of tourist facilities in the Plan Area in response to the increasing use of the area by recreationists.

POPULATION BASE

GROWTH AND DISTRIBUTION OF POPULATION

Historical Perspective

The settlement history of the Clinton Plan Area is closely tied to the region's economic history. From the initial population surge and decline during the Cariboo Gold Rush of 1857-1858, the size and distribution of population has changed in response to rail and road construction, agricultural development, mineral extraction, forestry and tourism. While some stability has been provided by the agricultural sector, populations have been susceptible to changes in economic opportunities relative to the regional resource base.

The community of Bralorne, for example, flourished in what was for a time, the richest and largest gold producing region of the Province, only to decline when the resources which had generated its growth were depleted. Numerous other small communities built along rail networks also suffered when changes in technology reduced their importance. Lillooet and Clinton, however, being more centrally located and supported by a broader, more diversified economic base, have exhibited greater population stability. As a result, these communities have consolidated their position as the region's two main population centres.

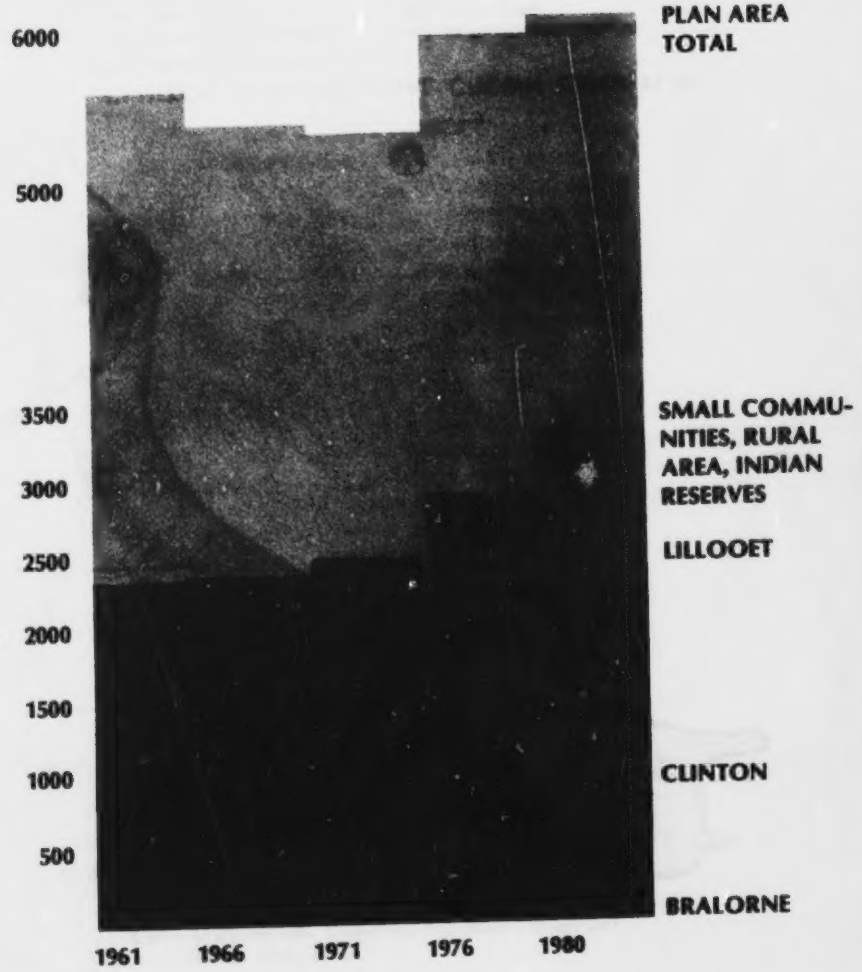
Generally, however, the Clinton Plan Area has not been an area of growth either in the province or in the region within which it is located. Growth rates have in the past been slower than average and, with a current population of 6,600 persons, the Plan Area remains sparsely settled and rural in nature.

Present Situation

As is shown in Figure 4, the current population of the Plan Area is estimated to be 6,570 persons, an increase of approximately 10 percent from 1976. Of this population, approximately 49 percent live in the twc main communities of Lillooet (population 2,350) and Clinton (population 850). The remainder (51%) reside in several smaller communities located on transportation routes or on dispersed farms and ranches. Approximately 18 percent of the total population are Native Canadians, many of whom live on Reserves in the Lillooet area (see Map 13).

During the 1960's and 1970's, Lillooet was the major growth centre of the sub-region, increasing in population by approximately 80 percent. The majority of this growth took place in the early 1970's. Since 1976, the population of Lillooet is estimated to have increased by less that 10 percent. The population of Clinton increased by 5 percent since 1976. This is in marked contrast to the previous 15 years during which the community suffered a slow but continuous decline.

FIGURE 4 POPULATION CHANGES 1961-1980

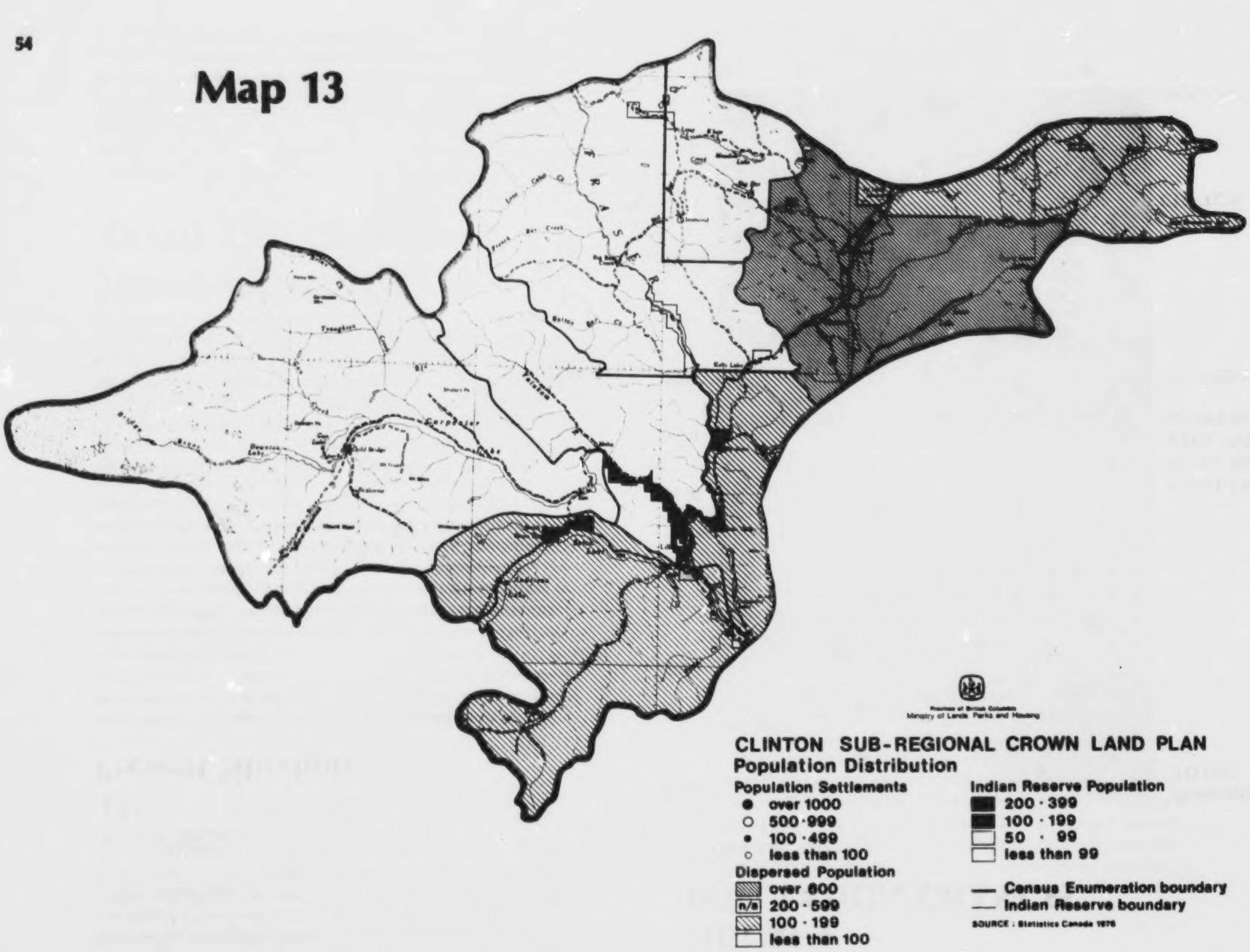


Source:

1961-1976 Statistics Canada Census of Canada

1976-1980 Projections made from past population growth trends and information supplied by Thompson-Nicola and Squamish-Lillooet Regional Districts.

Map 13


Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Population Distribution
Population Settlements
over 1000
500 - 999
100 - 499
less than 100
Dispersed Population
over 600
n/a 200 - 599
100 - 199
less than 100
Indian Reserve Population
200 - 399
100 - 199
50 - 99
less than 99
Census Enumeration boundary
Indian Reserve boundary
SOURCE : Statistics Canada 1976
FRASER

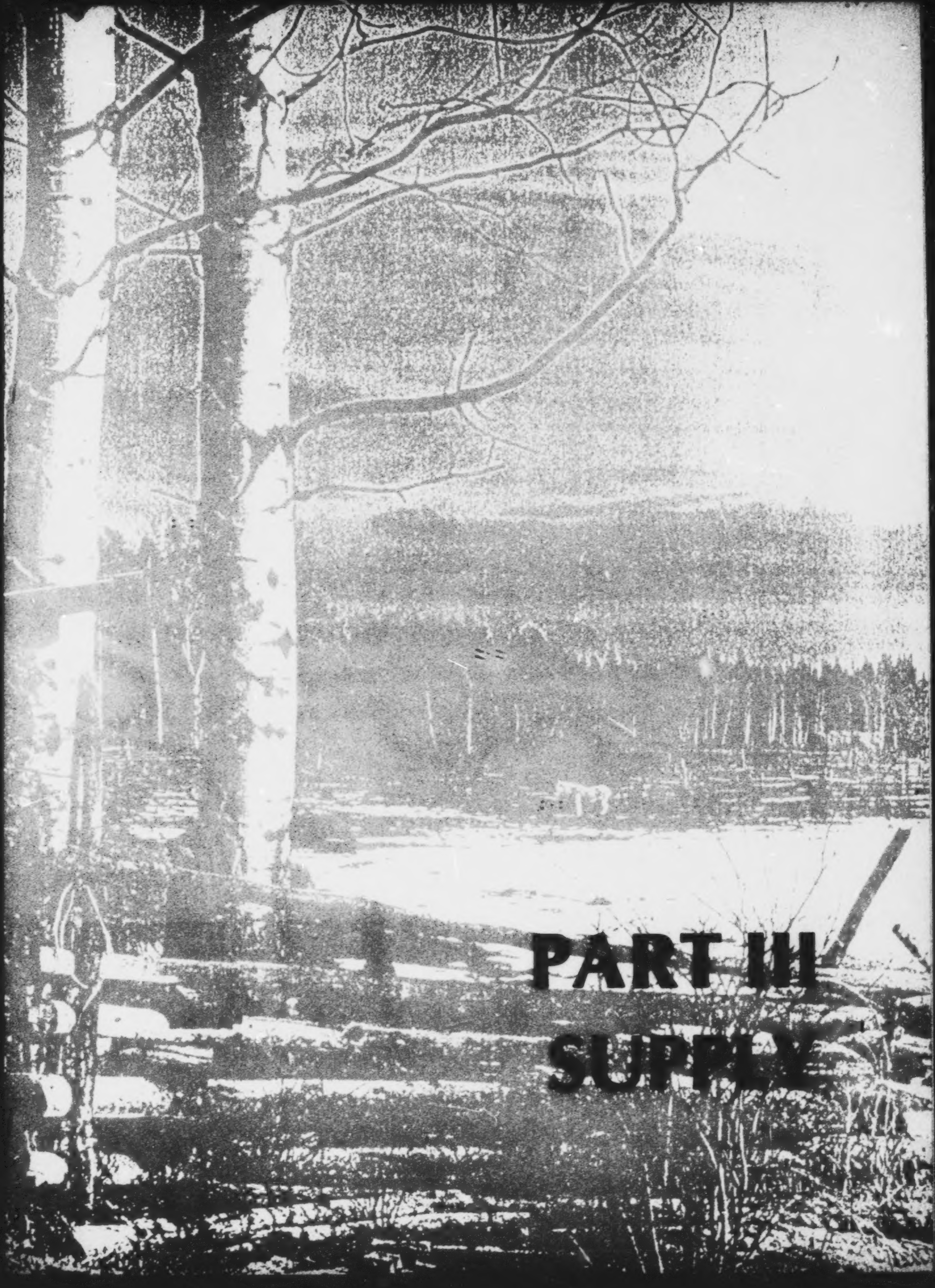
Populations of rural areas and small communities, while difficult to determine, are estimated to have increased by approximately 30% during the past 15 years.[1] Although this rate is below the rate for Lillooet over the same period, it is significant that, since 1976, the growth rate for rural areas and small communities appears to have exceeded that of the established communities. This may indicate a trend towards an increasingly dispersed population in the Clinton Plan Area and an increase in the rural/urban[2] population ratio.

POPULATION CHARACTERISTICS

Based on 1976 Statistics Canada information, the Plan Area can be characterized as follows:

- it contains a relatively higher percentage of persons under the age of 25 than the Provincial average, relatively fewer persons in the prime working age group (25-55), and a greater percentage of persons aged 55 years or older;
- the population of the Plan Area tends to be more transient than the Provincial average; this is more evident in Clinton and the unorganized areas than in Lillooet or on Indian Reserves;
- about 18 percent of the Plan Area population are Native Indian in origin; this compares with an average of two percent for B.C. as a whole; other nationalities are represented in ratios similar to the provincial average;
- family income is 11 percent lower than the B.C. average, and over twice the normal number of families (1/5th of the total) are in the lowest income brackets ($0-$3,000 per year)[3];
- the unemployment rate for the Plan Area may be higher than the Provincial Average; 1976 unemployment rates were 14 percent for the Plan Area, 17 percent for Clinton and 9 percent for Lillooet.

1. Based on information obtained from Squamish-Lillooet and Thompson-Nicola Regional Districts.
2. "Urban" refers to the Statistics Canada definition of 1000+ residents per square mile. Under this definition, Lillooet and Clinton would be urban areas.
3. Statistics Canada, 1971.


PART III
SUPPLY

PART III

RESOURCE AND CROWN LAND SUPPLY

INTRODUCTION

GENERAL APPROACH

Determination of the Crown land resources available to meet resource/land use sector demands requires the following minimum information:

An indication of the biophysical capability of the land for all activities and uses significant at the district level.[1]

Knowledge of those areas already committed and not available to meet resource and land use demands.

Employment of the above parameters leads to identification of land units which have capability for individual resource uses and which are available for designation to the preferred or priority use.

BIOPHYSICAL CAPABILITY

The specific biophysical capabilities of particular concern in the Plan Area at the broad sub-regional planning level have been largely established in accordance with the Canada Land Inventory (C.L.I.) land capability classification system. Capabilities for agriculture, recreation and wildlife (ungulates and waterfowl) have been mapped at the 1:125,000 scale for the majority of the Plan Area.

The C.L.I. system rates land use capability on a seven-point numeric scale, with class 1 indicating the highest and class 7 the lowest capability for a given use. Land areas are divided into units reflecting different capabilities based upon specific types of limitations (or opportunities, in the case of recreation). As long as the system's inherent limitations are recognized, the available C.L.I. maps provide a convenient and satisfactory basis for the determination of priority resource use areas.

1. At the sub-regional level of planning the Land Administration District is the recognized planning unit (see Figure 1).

Additional information was provided by those resource agencies having detailed knowledge of and/or jurisdiction within the Plan Area. This has resulted in: minor deviations for C.L.I. data for recreation, ungulate and agricultural capability; use of alternative capability data based on Forest Cover Maps for determining capability for forestry; and, utilization of new data for range capability to reflect the significant range resources within the Plan Area. These resource capability modifications, made at the request of Provincial resource agencies represented on the Clinton Plan inter-ministry Task Group and subsequently endorsed by the Task Group, are summarized below.

Deviations from C.L.I. Data

C.L.I. capability information does not consider, among other parameters, access, location or present land use conditions. Modifications were requested to C.L.I. capability for outdoor recreation by the Parks and Outdoor Recreation Division of the Thompson-Okanagan Region to reflect high recreation demand levels due to access to a number of "specific" areas including the Duffey Lake corridor. To reflect this concern, C.L.I. outdoor recreation capability was upgraded from "moderate"[1] to "prime" in specific instances. These modifications were incorporated into the map of land capability for outdoor recreation.

Wildlife habitat capability data provided by the Fish and Wildlife Branch indicated several areas of high or good capability for mountain goats south of Bridge River which do not appear on C.L.I. maps. Fewer areas of high

1. References to prime, moderate and limited capability made in this section relate to aggregations of the C.L.I. seven class land rating system.

or moderate capability are recognized by the Branch in the Seton, Cayoosh and Upper Bridge River basin than are indicated by C.L.I. information. Modifications have been made to the map, which displays land capability for ungulates, in order to reflect Fish and Wildlife Branch information.[1]

Organic bogs are not assigned an agricultural capability rating on C.L.I. maps but are merely identified. Concern was expressed by the Ministry of Agriculture and Food that such areas do in fact have capability for the production of some forage crops. To reflect this capability, organic bogs have been recognized as having "limited" agricultural capability.

Alternative and Additional Capability Data

C.L.I. capability maps for forestry indicate relatively low values for the Plan Area in comparison to coastal areas. To better reflect forestry values specific to the Plan Area, Forest Cover maps were used as a surrogate measure of forest capability, at the request of the Ministry of Forests. These maps portray the forest resources in substantially greater detail than do C.L.I. maps. Among parameters presented are species present, stand age, height and stocking density and an evaluation of site quality on a four point scale.

To reflect significant range resource values within the Plan Area, the Ministry of Forests requested that range productivity data based on Range Survey Maps be incorporated into the overall assessment of the resource base. Range Survey Maps display the level of range productivity in terms of the number of hectares required to feed a cow and calf for a period of one month. These indicators of range capability were compiled by the Range Division, Ministry of Forests, generally at a District level.

CAPABILITY GROUPINGS

For convenience of data collection, comparison and analysis, the seven land capability classes of the C.L.I. system have been compressed into three groups consisting of Prime, Moderate and Limited Capability (Table 6). This grouping system, endorsed by the Clinton Planning Task Group, was utilized by the Land Capability Analysis Committee of the B.C. Land Inventory in the preparation of land capability analysis (L.C.A.) maps throughout the province. These include the Cariboo L.C.A. maps (1964) which cover the north half of the Plan Area. Although the Cariboo L.C.A. map has not been used in the Clinton Plan to identify priority use areas, the mapped base data groupings form a substantial part of the capability data base for the north half of the Plan Area. Forest capability data derived from Forest Cover maps and range capability data from Range Survey maps have been similarly combined into groupings.

The following section discuss the various resource capabilities within the Plan Area according to the three-level groupings, and Figure 5 summarizes the percent occurrence of each.

FISH AND WILDLIFE HABITAT

Fish and wildlife habitat in the Plan Area is primarily reflected in the available C.L.I. capability maps for waterfowl and ungulates. These maps identify the habitat value for wildlife through a rating of the land's ability to

1. Further to the modifications indicated, the Fish and Wildlife Branch noted that ungulates and waterfowl represent only a small component of the range of wildlife species found within the Plan Area. C.L.I. ommissions include, for example, upland game birds. In addition to hunted species of birds, there are at least 100 avian species nesting in the area which are an important non-consumptive wildlife resource. Fur-bearing mammals represent another significant resource. While habitat needs for all wildlife species should be addressed in comprehensive planning, the Fish and Wildlife Branch recognizes that deficiencies in wildlife data should not delay Crown land planning.

TABLE 6
C.L.I. CLASS AND FOREST AND RANGE PRODUCTIVITY GROUPINGS FOR CLINTON PLAN AREA

GROUPING	C.L.I. AGRICULTURE CLASS	C.L.I. FORESTRY CLASS	C.L.I. RECREATION CLASS	C.L.I. UNGULATES CLASS	C.L.I. WATERFOWL CLASS	FOREST SITE QUALITY CLASS	RANGE PRODUCTIVITY CLASS
PRIME							
MODERATE							
LIMITED (EXTENSIVE)							

W = Winter Range

support various species of ungulates and waterfowl. The maps *do not* necessarily indicate the actual presence or distribution of wildlife which can only be determined through detailed surveys. The capability map information is supplemented by use of Map 6 (Sport Fisheries).

WATERFOWL

Waterfowl capability is shown in Map 14. Classification is based on the number and/or type of limitations which affects quality and/or quantity of habitat for waterfowl. Calculations indicate that prime areas constitute less than 0.5 percent of the Plan Area, moderate areas 1.3 percent and limited areas 0.7 percent. Land in the above three classes is found almost exclusively on the Plateau east of the Marble Range, with the higher capability areas occupying a crescent-shaped strip bounded by the Rayfield River on the east, Chasm to the south, the Fraser River to the west, and the Plan boundary to the north. An exception is the large area of prime waterfowl habitat found along the western third of Carpenter Lake. The Plateau land south of the Bonaparte River also contains many smaller scattered waterbodies with limited or moderate ratings. These lakes have generally low migrational use relative to the band of lakes centered on 70 Mile House.

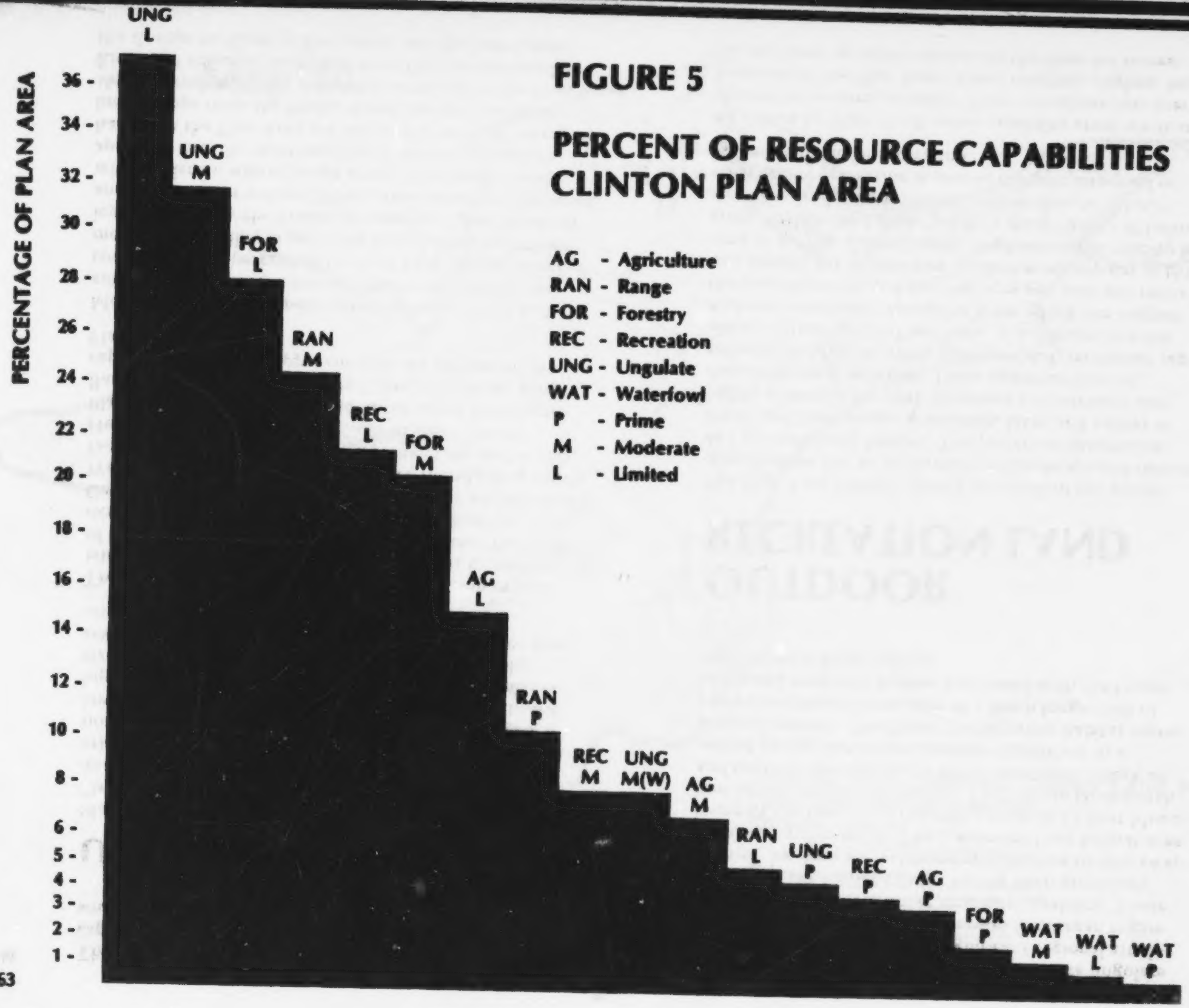
Limitations to waterfowl habitat for the larger lakes reflect poorly developed or non-existent marsh shoreland and deep waters which reduce food availability. For smaller waterbodies, a major limitation is imposed by climate, as many ponds dry up completely during the summer and autumn months.

In a broader regional context, the prime and moderate habitat in the Plan Area have considerable significance. Class 1, 2 and 3 waterfowl capability areas are extremely limited throughout the entire Coast Range and the southern and central Interior Plateau areas. The nearest concentrations of land of comparable size in the

FIGURE 5

PERCENT OF RESOURCE CAPABILITIES
CLINTON PLAN AREA

AG - Agriculture
RAN - Range
FOR - Forestry
REC - Recreation
UNG - Ungulate
WAT - Waterfowl
P - Prime
M - Moderate
L - Limited



Thompson-Okanagan Region having prime waterfowl capability are found at Hat Creek and Kamloops to the southeast.

UNGULATES

Map 15 outlines the ungulate capability ratings for the Plan Area based on C.L.I. maps. It is evident that approximately 35 percent of the land base has moderate to prime capability and that the Interior Plateau is the location of a significant proportion of this area. Areas of lowest capability are almost exclusively confined to the higher elevations of the Coast Mountains where excessive snow depth, poor soils and adverse topography severely reduce the amount of habitat available for most ungulates.

The prime capability areas serve as both summer and winter range and have very few limitations to production of ungulates, particularly for moose and deer. The most extensive area is found along the east flank of the Camelsfoot Range west of the Fraser River and north of Watson Bar Creek. Smaller areas are found along south-facing valley slopes north of Carpenter Lake and in the Hurley River valley south of Gold Bridge. On the Plateau, prime areas are found in the upper Bonaparte Basin near Eagan and Machete Lakes. Together, prime capability areas total approximately 4.0 percent of the Plan Area.

Moderate capability lands, including both winter and summer ranges, occur extensively on the Plateau and cover nearly 32 percent of the land base. Winter range of moderate capability is generally found along stream valleys, particularly the Fraser, Bonaparte, Upper Yalakom and Bridge River valleys. When prime areas are combined with moderate winter range areas, it becomes readily apparent that the most significant blocks of ungulate habitat in the Plan Area are found in a series of extensive linear strips from the Bridge River dam to Gold Bridge along Carpenter Lake; along the north half of the Fraser River and adjacent lands; and from Clinton eastward up the Bonaparte River to Bonaparte and Machete Lakes.

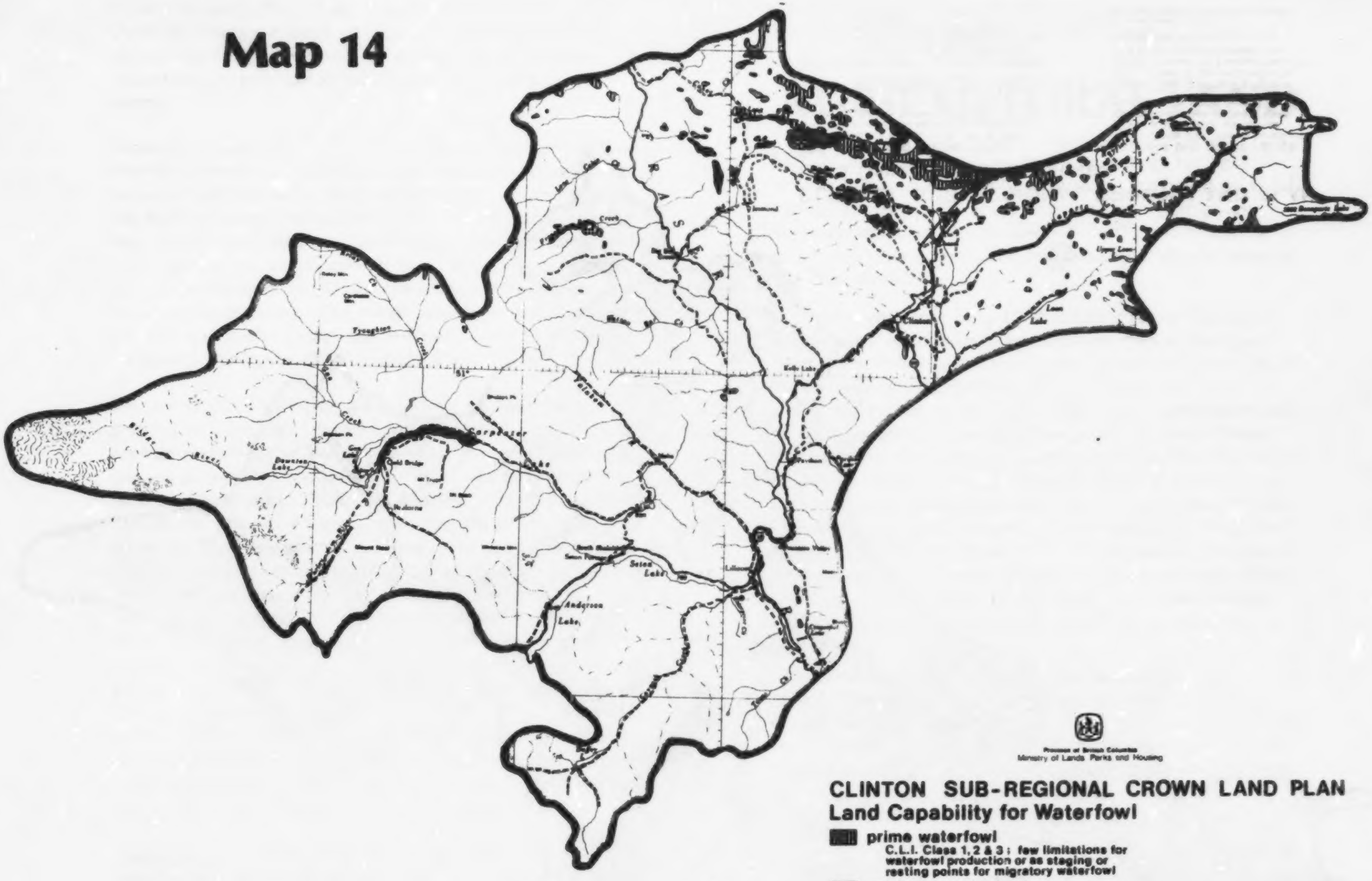
In a broader context, the prime and moderate ungulate capability areas stand out as significant regional attributes. The majority of the Thompson-Okanagan region consists of lands with lower ungulate capability. Those lands with the higher ratings having been previously altered by human settlement (Okanagan-Shuswap-Kamloops valley area). The Carpenter Lake habitat area is one of the few prime capability areas in a Coast Mountain setting within the Region. The Plateau lands north and south of the Bonaparte River constitute a block of upland having moderate capability significant in a regional context. The Fraser Valley prime habitat represents a southward extension of a much longer belt of prime and moderate habitat associated with the Fraser and Chilcotin River valleys.

OUTDOOR RECREATION LAND

The Plan Area offers a variety of excellent recreation opportunites due to its diversity of landscape and climate, and its settlement history. The pattern of mountains, forest and open range, grasslands, lakes and valleys is highly attractive for both dispersed and intensive outdoor recreation activities. These opportunities are reflected in Map 16 which outlines C.L.I. recreation capability ratings for the Plan Area. C.L.I. maps give the highest recreational ratings to areas which can support the most intensive use per unit area per year and relate to a specific list of activities deemed most popular at the time of survey. Consequently, highest ratings tend to be given to shoreland areas, where a great variety of intensive uses can be accomodated, rather than to upland areas where recreation is geared towards dispersed or extensive forms of recreation.

As shown by Map 16, all prime capability areas are found adjacent to streams or lakes. These constitute just over 3 percent of the Plan Area. Good camping, angling, boating and viewing opportunities are the basis for recrea-

Map 14



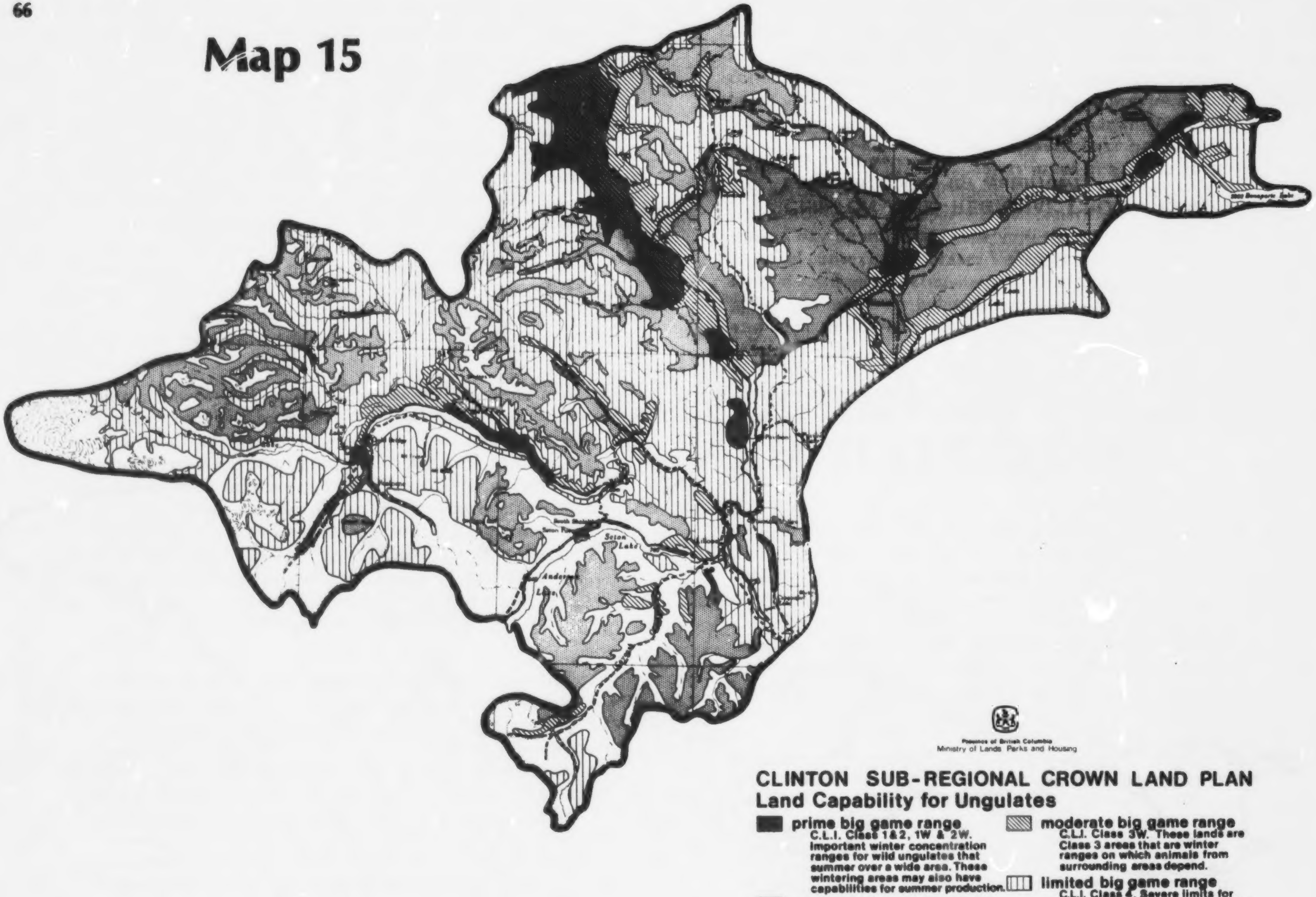
Province of British Columbia
Ministry of Lands, Parks and Housing

CLINTON SUB-REGIONAL CROWN LAND PLAN
Land Capability for Waterfowl

- **prime waterfowl** — C.L.I. Class 1, 2 & 3 : few limitations for waterfowl production or as staging or resting points for migratory waterfowl
- **moderate waterfowl** — C.L.I. Class 4 ; important on a local scale but limited waterfowl production due to poor marsh edge & excessive water depth
- **limited waterfowl** — C.L.I. Class 5 ; severe limitations on waterfowl production and are of low migrational and/or wintering use

SOURCE : Canada Land Inventory; Land Capability for Wildlife-Waterfowl

Map 15


Seton Lake
Anderson Lake
Province of British Columbia
Ministry of Lands Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Land Capability for Ungulates
prime big game range
C.L.I. Class 1&2, 1W & 2W. Important winter concentration ranges for wild ungulates that summer over a wide area. These wintering areas may also have capabilities for summer production.
moderate big game range
C.L.I. Class 3. Slight limits to production of wild ungulates, but are important year-round or seasonal use areas.
moderate big game range
C.L.I. Class 3W. These lands are Class 3 areas that are winter ranges on which animals from surrounding areas depend.
limited big game range
C.L.I. Class 4. Severe limits for production of wild ungulates with low to moderate summer use capability only.
SOURCE: Canada Land Inventory
Land Capability for Wildlife-Ungulates

tional ratings in the prime areas of the Plateau. In the Coast Mountain valleys, viewing of glaciers and other unique landscape elements, and commercial lodging opportunities provide an additional basis for a prime rating.

Moderate capability lands (C.L.I. Class 4) occupy approximately 8 percent of the total area, and also reflect the value of surface water features in attracting and sustaining high-intensity recreational activities throughout the year. Such areas also provide wetland and upland wildlife viewing opportunities, exceptional vantage points and unique landscapes and landscape inter-relationships as a basis for their rating. The gorge at Chasm and the sinking streams in the limestone bedrock of the Marble Range are examples of such landscapes.

The extensive capability areas shown on Map 16 correspond to C.L.I. Class 5 recreation lands and occupy approximately 22 percent of the Plan Area. While they cannot generally support high intensity use per unit of land on a year-round basis, such areas tend to be larger in size and are often significant in terms of the total number of users attracted. These areas are conducive to such activities as hunting, trail riding and backpacking, in which participants generally avoid the smaller, intensively-used recreational areas in favour of open space with fewer competing uses. The addition of this category of land has the effect of linking most prime and moderate capability areas into a linear network of significant recreational values based on the major stream valley network within the Plan Area. Viewing, topographic variety and presence of water features account for several isolated patches of Class 5 capability land in the Plan Area which are not part of this linear network.

In a regional context, prime capability areas are relatively rare and are all closely associated with lakes and streams in valley environments. The majority of the lands in the interior regions of the province have outdoor recreation capability of Class 4 and lower. Given this relative scarcity of prime capability lands, the lakes of the Bonaparte and Seton River basins which display great capability to sustain intensive recreational activities must be considered as important focal points for recreational land use.

AGRICULTURAL LAND

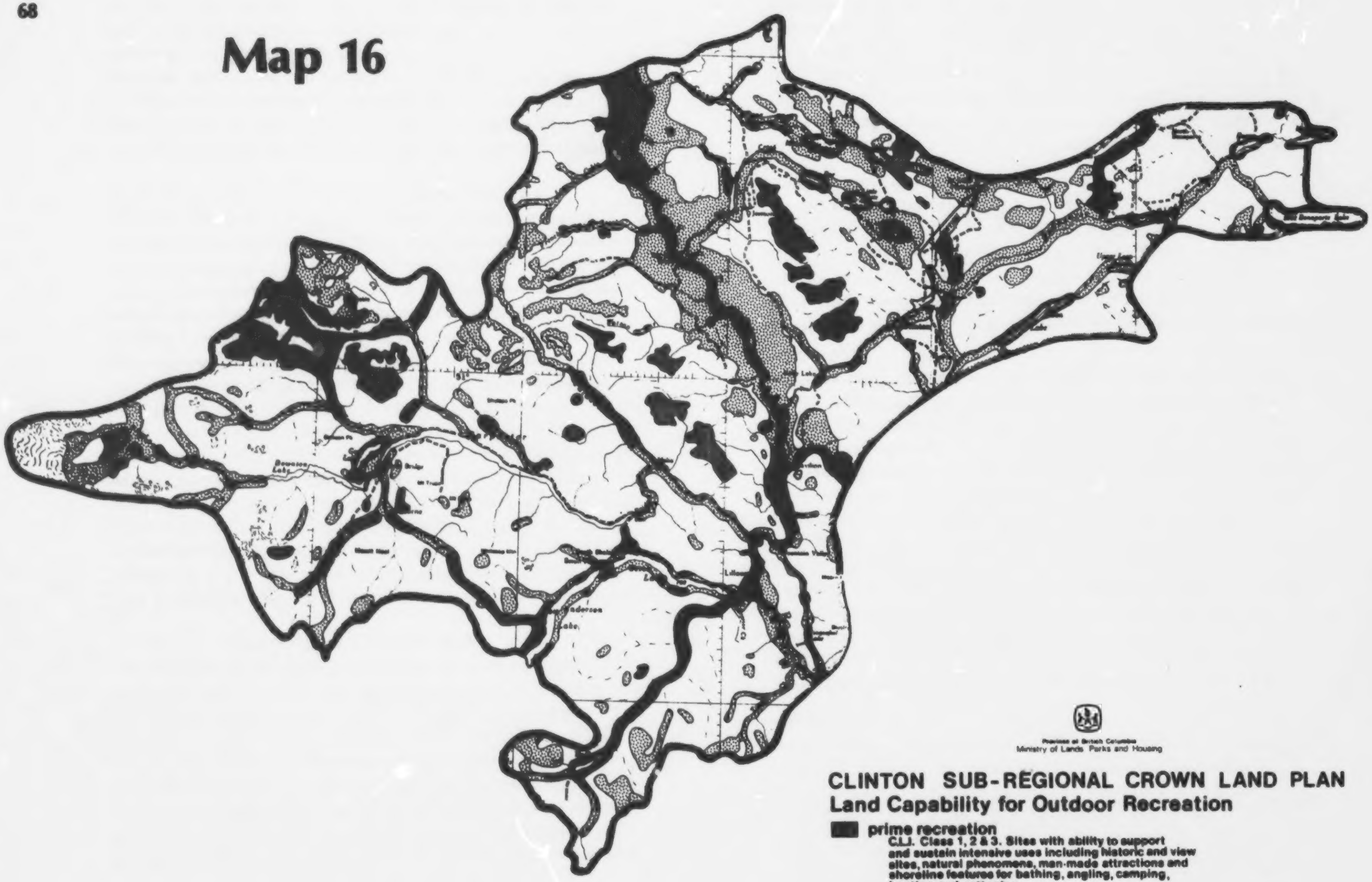
Map 17 illustrates soil capability groupings for agriculture in the Plan Area. The groupings are based on C.L.I. ratings for agricultural capability *assuming irrigation*, since agricultural production is not otherwise feasible given the severe limitation imposed by aridity in most of the Plan Area.

It is apparent from Map 17 that the Interior Plateau is much more conducive to agriculture than is the Coast Mountain area west of the Fraser. Lands of prime, moderate and limited capability (C.L.I. classes 1-5) are extensive except in the higher elevation Camelsfoot and Marble Ranges and on the steeper valley sides. Prime soils are found on stream terraces and floodplains, including those of the Fraser, Bonaparte and Rayfield Rivers. Larger blocks are located near Upper Loon Lake, 70 Mile House, Chasm and Pavilion. Crops which can be grown under irrigation on these lands include vegetables, cereal grains and forage crops. Without irrigation water, however, capabilities are reduced to the "moderate" range and the land can support only improved pasture use or hay crops.

Moderate and limited capability soils are dominant on the Interior Plateau, with moderate lands shown as large blocks north of Loon Lake and as an area extending from Big Creek to the Rayfield River above Chasm. Limited capability areas (C.L.I. class 5 and organics) are confined to use as improved pasture or native range and occupy most of the remaining flatter lands of the Plateau.

Most of the land west of the Fraser River has poor or no agricultural capability, reflecting harsh climate, rugged terrain and poor soil development. Pockets of agricultural land are located within major stream valleys and are moderate or limited in capability. Notable areas are at Seton Portage, the Yalakom-Bridge River confluence, the Carpenter-Gun Lake area, and north of Lone Cabin Creek.

Map 16



Province of British Columbia
Ministry of Lands, Parks and Housing

CLINTON SUB-REGIONAL CROWN LAND PLAN
Land Capability for Outdoor Recreation

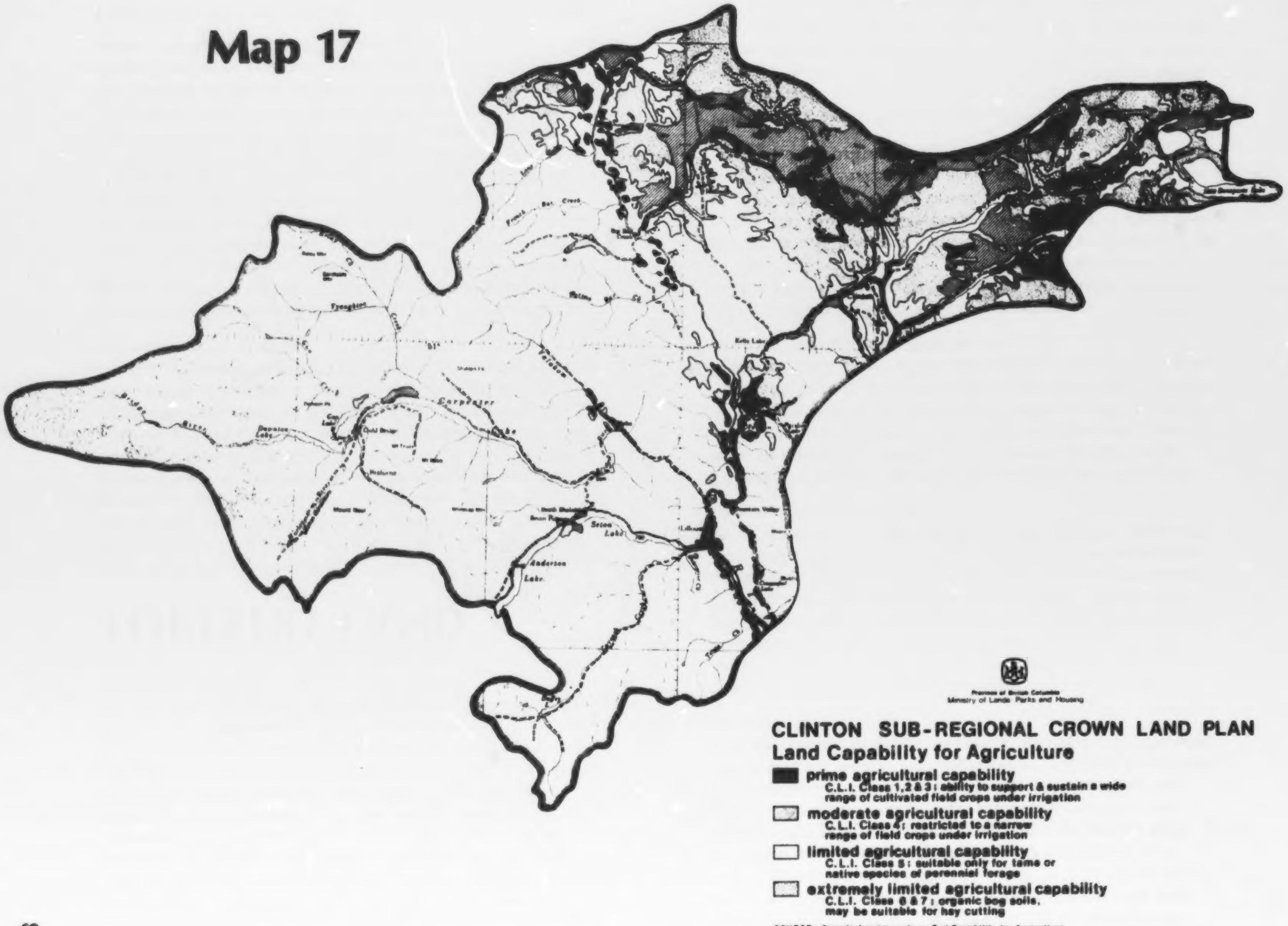
prime recreation
C.L.I. Class 1, 2 & 3. Sites with ability to support and sustain intensive uses including historic and view sites, natural phenomena, man-made attractions and shoreline features for bathing, angling, camping, boating and cottaging.

moderate recreation
C.L.I. Class 4. Important upland areas containing streamside camping sites or units offering a full range of extensive recreational activities of good quality.

extensive recreation
C.L.I. Class 5. Generally large units with a limited range of extensive recreational pursuits and small site-specific attractions.

SOURCE: Canada Land Inventory, Land Capability for Recreation

Map 17


Seton Lake
Anderson Lake
Carpenter Lake
Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Land Capability for Agriculture
prime agricultural capability
C.L.I. Class 1,2 & 3 : ability to support & sustain a wide range of cultivated field crops under irrigation
moderate agricultural capability
C.L.I. Class 4 : restricted to a narrow range of field crops under irrigation
limited agricultural capability
C.L.I. Class 5 : suitable only for tame or native species of perennial forage
extremely limited agricultural capability
C.L.I. Class 6 & 7 : organic bog soils, may be suitable for hay cutting
SOURCE : Canada Land Inventory ; Soil Capability for Agriculture

Prime capability areas constitute approximately 3 percent of the Plan Area while moderate and limited capability lands represent 7 and 15 percent respectively. Prime and moderate lands are significant to local ranch and farm operators who rely on them to provide a hay crop to carry their beef animals over the winter months. Lands of lower capability may be available for grazing under normal forest management practices and may not need to be in private ownership. The availability of grazing licences for such areas is likely to be essential, however, for the viability of beef cattle operations in the Plan Area.

FORESTRY LAND

Map 18 illustrates forest capabilities within the Plan Area. This map is based primarily upon assessments of site quality made by the B.C. Forest Service in the process of compilation of its Forest Cover Maps. In accordance with this system of site classification, site quality is ranked good, medium, poor and low. No rating is given to non-forested wetlands, meadows, grasslands or alpine areas. For the purpose of this Plan, these forest site quality classifications have been translated into capability groups of prime, moderate and limited as represented on Map 18.

It is readily apparent from the map that areas of high forest capability within the Plan Area occur primarily in the Coast Mountain area west of the Fraser River, especially on the bottomlands and lower and mid-slopes of all the major valleys extending into the Coast Range. Less extensive areas are also found east of the Fraser along the upper valley of the Bonaparte River and to the north of Bonaparte Lake. In both localities, prime capability is associated with the lower elevational portions of the Engelmann Spruce-Subalpine Fir Biogeoclimatic Zone and with the moister portions of the Interior Douglas Fir Zone. Species of principal importance are Engelmann spruce, subalpine fir and Douglas fir.

Forests of moderate capability occur throughout the Plan Area but with relatively less frequency in the moister areas west of the Fraser River. They are especially common on the Bonaparte Plateau, while in other areas they generally characterize the middle and upper slopes of major river valleys to elevations of approximately 1500 metres. As with areas of high capability they are essentially limited to the Engelemann Spruce-Subalpine Fir and Interior Douglas Fir Biogeoclimatic Zones. Important tree species are Engelmann spruce, subalpine fir, Douglas fir and lodgepole pine.

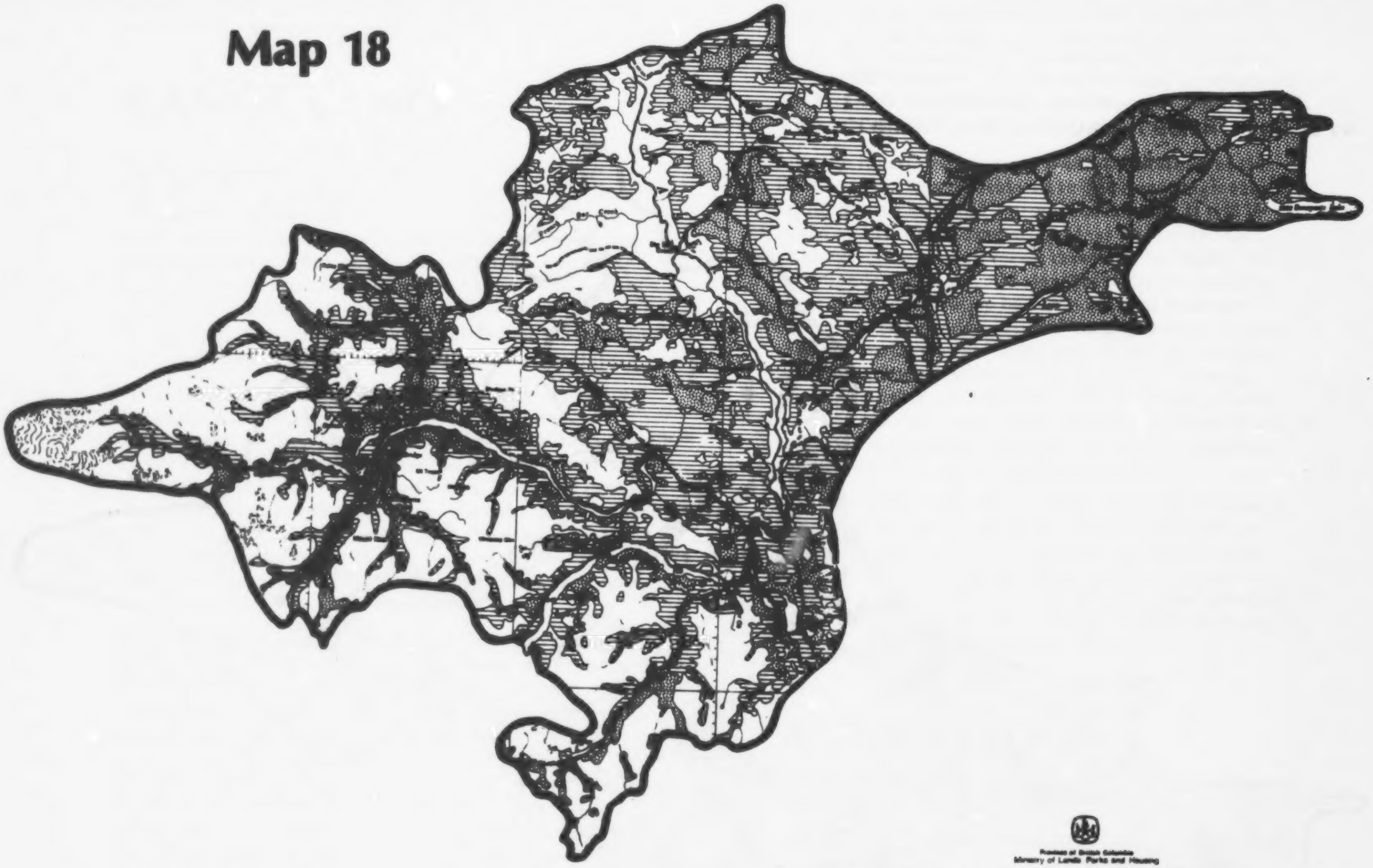
Limited forest capabilities characterize most of the remaining portions of the two biogeoclimatic zones mentioned above and also the moister portions of the Ponderosa Pine-Bunchgrass Zone (i.e. those portions characterized by continuous forest cover). These areas are largely, although not totally, restricted to the eastern side of the Fraser River. Principal species characterizing these areas are Engelmann spruce, Douglas fir, lodgepole pine and ponderosa pine.

Substantial portions of the Plan Area can be considered to have minimal or non-existent forest capability as a result of harsh climate, steep, rocky or otherwise unfavourable terrain and/or excessively saline or infertile soils. Such areas are found primarily within the Alpine Tundra Biogeoclimatic Zone which characterizes most of the Plan Area occurring above 1800 metres.

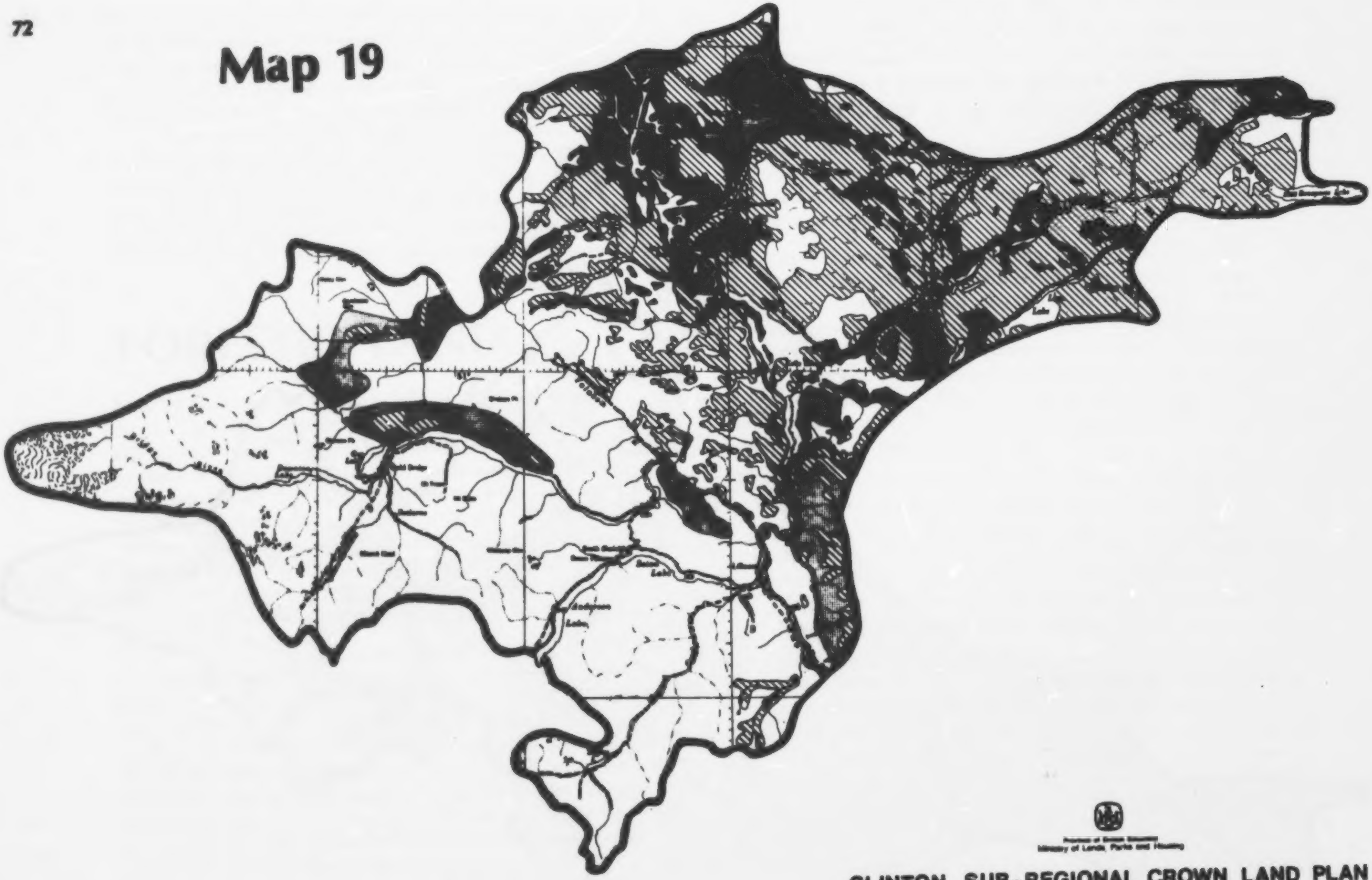
Areas of high forest capability are relatively restricted within the Plan Area, occupying no more than 2 percent of the total land area. Far more plentiful are areas of moderate and low forest capability which cover 20 and 28 percent of the Plan Area respectively. Many of the areas of high capability which remain unharvested are located in remote and inaccessible areas and/or are relatively small and discontinuous.

While the areas of high forest capability are, by and large, characterized by relatively few resource conflicts, many areas of moderate capability for forest growth also show other significant resource capabilities, especially relative to range and wildlife use. Accelerated use of these areas will lead to increased competition for the resource, a

Map 18


CLINTON SUB-REGIONAL CROWN LAND PLAN
Land Capability for Forestry
prime
moderate
limited
SOURCE: Forest Cover Series, Ministry of Forests

Map 19



Province of British Columbia
Ministry of Lands, Parks and Housing

CLINTON SUB-REGIONAL CROWN LAND PLAN
Land Capability for Range

- prime range 6 or less acres/a.u.m.
- moderate range 7-10 acres/a.u.m.
- limited range 11 or more acres/a.u.m.

SOURCE: Range Survey maps & Range Management Division, Ministry of Forests

situation which can only be resolved by sound planning and resource management practices.

RANGE LAND

Range capabilities for the Plan Area are depicted on Map 19. This is a composite map derived partially (for that portion of the Plan Area east of the Fraser River) from recent Range Survey Maps updated by Forest Service personnel in Clinton, and partially from personal communication with Forest Service Range Management personnel in Lillooet. Capabilities indicated are prime, moderate and limited. Large areas, classified as wasteland are considered to have no significant range capability.

As with agricultural capability, areas of high capability for grazing are located primarily on the Thompson Plateau, east of the Fraser River and comprise 10 percent of the Plan Area. Here, especially in the drier portions of the Interior Douglas Fir Biogeoclimatic Zone and in the Ponderosa Pine-Bunchgrass Zone, the light to negligible tree cover affords a very substantial growth of palatable forage species, including both forbs and grasses. The relatively flat terrain provides few impediments to access or movement.

Although fairly substantial areas of moderate capability grazing land (24 percent of the Plan Area) are found in the major river valleys leading into the Coast Mountains, west of the Fraser River, the bulk of this capability class, as with the high category, occurs on the Thompson Plateau. In this instance, it is associated with the moister, higher elevation portions of the Interior Douglas Fir Biogeoclimatic Zone or with the driest portions of the Engelmann Spruce-Subalpine Fir Zone characterized by a substantial portion of aspen. In these areas, forest cover is somewhat denser than in the "high" category and forage growth is consequently sparser and, as a result of higher elevations, the period during which they can be utilized is somewhat shorter.

Areas of low and insignificant capability, although found to some degree east of the Fraser River, predominate to the west. In these areas, a very large proportion of the land is characterized by denser forest with little or no herbaceous understory and/or steep, rocky or mountainous terrain. Low capability range comprises approximately 4 percent of the Plan Area.

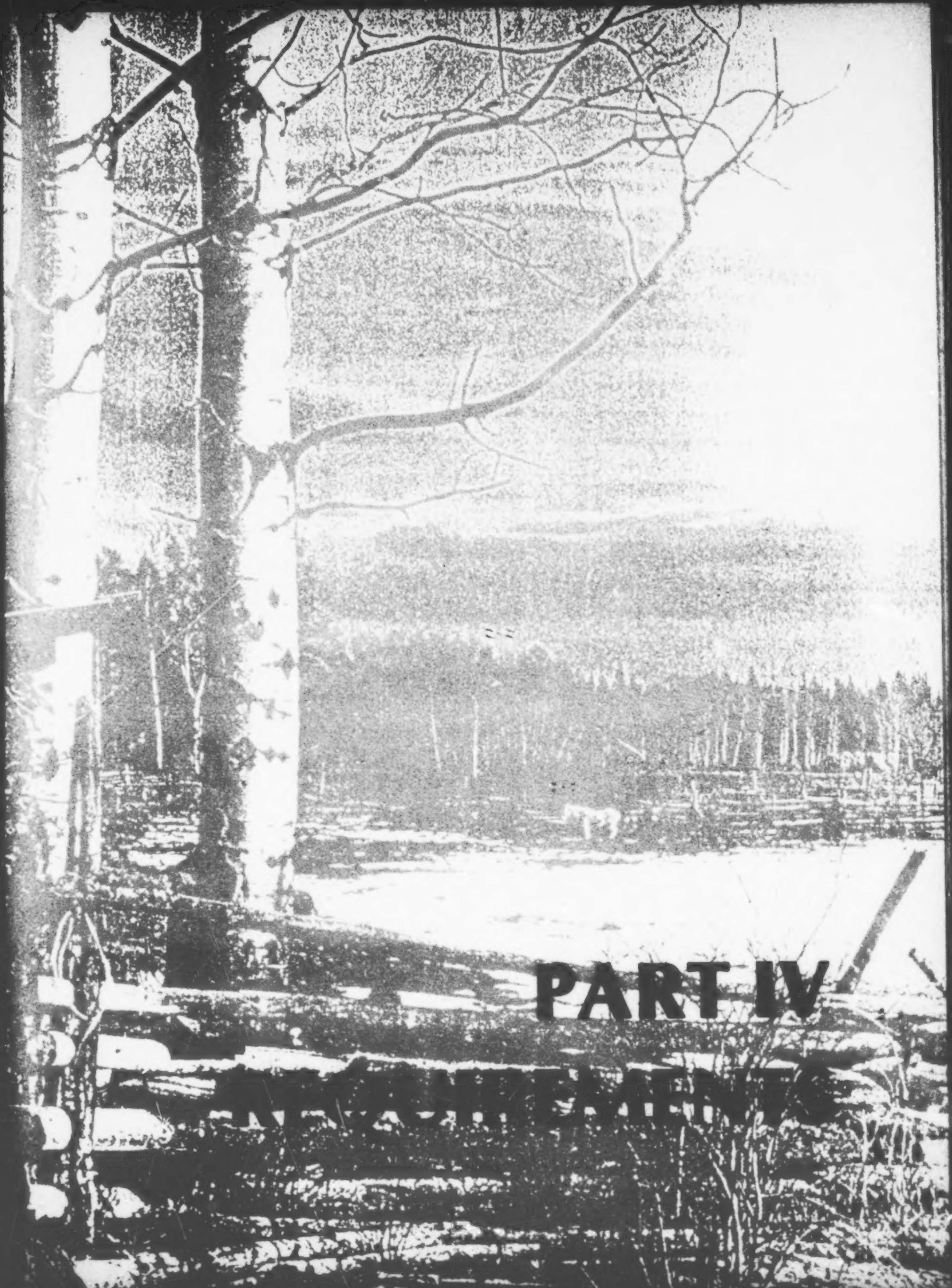
Like the forest resource, the grazing resources of the Plan Area must be considered to be of very high value, within both a local and a provincial context. It will be noted as a result of comparing Maps 18 and 19 that, although areas of high forest capability lie largely outside the boundaries of areas of significant range capability, there is a major overlap between areas of moderate forest capability and significant range potential. Fortunately, no major conflict need arise from this, as timber harvesting and silvicultural treatment (i.e. thinning, selective cutting, etc.), if carried out in an appropriate manner, can enhance grazing capability by maintaining relatively open forest conditions and thereby promote the growth of palatable shrub and forb species.

Far more profound is the potential for conflict between grazing and wildlife use. Areas of high and moderate potential for grazing often coincide with those lands within the Plan Area of greatest significance from the standpoint of ungulate use. Careful long term planning and priorization of resource interests will be necessary in order to resolve these potential conflicts.

ALIENATED CROWN LAND

Although the majority of the Clinton Plan Area is unalienated Crown land, as indicated on Map 10, approximately 10 percent is alienated. Alienated land includes private land holdings, several large Indian Reserves and leased land. Such areas are commitments to the land base which effectively reduce the supply of Crown land and resources available to meet resource/land use demands.

These commitments do not comprise a significant portion of the Plan Area relative to unalienated Crown land. From the perspective of the supply of Crown resources available to meet various requirements, however, such committed lands are of particular significance because they often incorporate the higher capability sites of certain resources. To illustrate, alienated lands contain most prime agricultural resources, a considerable portion of the prime ungulate area in the Bonaparte Valley and west of the Fraser River, and prime recreation sites in the vicintiy of Lillooet and adjacent to various lakes including Eagon, Loon, Seton, Anderson and Gun Lakes.


PART IV
REQUIREMENTS

PART IV

PLAN REQUIREMENTS

INTRODUCTION

The sub-regional level of Crown land planning is a process for establishing broad-level use and management priorities for available Crown lands and prescribing general policies to reflect preferred use and management practices. In very general terms, this process is intended to address, in an overview manner, both the supply of and demand for Crown land and resources to ensure that sufficient resources are available to enable Crown agencies to discharge their respective mandates.

Assessment of the available "supply" of Crown resources is based on broad-level Canada Land Inventory land capability data. This data defines the natural biological and physical ability of the land to support a given management activity or use. Supply within the Clinton Plan Area is documented in Part III which identifies the general nature, magnitude and distribution of key resource values.

Data for assessing broad level demands for Crown land is not, however, as readily available. Government agencies were for the most part unable to specify, at the sub-regional level, requirements for Crown land relative to their respective mandates or to define operational objectives or strategic targets from which an assessment of Crown land demands could be made. A review of agency objectives (supplied by the agencies on the Clinton Task Group) revealed that most were generalized statements of intent within a provincial context which could not be refined to be applicable to the Plan Area. Furthermore, the Task Group was unable to determine the importance of an agency's objectives relative to those of other agencies. The inherent result was that all objectives were considered to be of equal importance and a priorization of resource capabilities based on ranked agency objectives could not be made.

Although they provide only limited direction for assessing resource allocation priorities, agency objective statements are at least generally indicative of the expectations of government regarding the use and management of Crown resources within the Plan Area. As well, the statements can assist in identifying Plan allocation categories, and in deriving various Plan policy items.

In the absence of demand data or operational objectives and targets at a sub-regional scale for the Plan Area, the Plan must rely on other means to determine resource allocation and Plan policy requirements. The purpose of this section is to "pull together" these alternative data. Toward this end:

- the relative importance of the key economic sectors within the sub-regional economy and the Plan Area economic and settlement outlook are reviewed;
- issues which emerge from the above overview and the analysis of the characteristics of the sub-region and the resource and Crown land supply contained in Parts II and III are identified;
- priority allocation and policy requirements of the Plan to resolve these issues are then outlined.

It is the synthesis of issues and the associated resource priority allocation and policy requirements which provides the direction for and constitutes the basis of the Plan.

ECONOMIC AND SETTLEMENT OUTLOOK

ECONOMIC OUTLOOK

Economic activity within the Plan Area is closely associated with the natural resource base. Part II reviewed this activity on a sectoral basis. The following overviews both the relative importance of the various sectors to the local economy and the economic outlook of each. General implications for the allocation of the Crown land base to resource priorities are then described.

The relative importance of the resource sectors to the Plan Area economy as a whole can be reasonably assessed by comparison of annual gross values of production. In the absence of published small area statistics, the 1979 values for key resource sectors were estimated as follows: forestry (including milling), $30 million[1]; tourism expenditures, $4 million; farm cash receipts, $2.6 million; mining (primarily sand and gravel), $1 million.

Forestry

The forest industry, with production valued at approximately $30 million in 1979, is clearly the dominant resource sector in the Clinton Plan Area. Even when lumber markets are poor (as in 1980) the gross value of wood products considerably exceeds that of the other resource sectors. It is during periods of poor lumber markets that the importance of the forest industry to the sub-regional economy is most noticeable as construction and business activity quickly falls off in response to reduced earnings by forest workers. Conversely, during periods of expanding forest activity, construction and business activity in the local communities increases. Virtually all manufacturing activity currently taking place in the Plan Area is associated with the forest products industry.

Allocation of much of the productive forest land in the Plan Area to forest resource priority is required if forestry is to continue as the key component of the economic base within the Plan Area. Assuming that present production levels continue, statistics indicate that if *all* productive forest land is set aside for timber production purposes, timber supplies from the Plan Area could fall short of mill requirements within thirty to forty years.

1. Calculated using a log recovery factor of 575 board feet per cunit and assuming a price of $200 per thousand board feet of sawn dimensional lumber.

Tourism

Tourism and outdoor recreation represent a significant component of the sub-regional economy, generating $4 million annually. In addition, this sector has shown considerable growth in recent years. Proximity to the increasing populations of the Kamloops and Vancouver areas will likely contribute to strong tourism oriented demands over the foreseeable future as long as the high capability outdoor recreation resources, the abundant fish and wildlife resources and the general scenic attributes of the sub-region are protected. Those areas displaying high capability for intensive recreation use, therefore, should be considered for recreation priority allocation. Protection of critical fish and ungulate habitats will also be required to ensure the long-term viability of fishing, hunting and non-consumptive recreation activities associated with fish and wildlife in the Plan Area. Other recreational pursuits such as cross-country skiing and hiking are often compatible with other resource uses of the land base and can normally be accommodated within other resource priority areas.

Agriculture

Agriculture, with farm cash receipts estimated at $2.6 million in 1978, is also an important resource activity within the Plan Area in terms of gross revenues. Agricultural activity is and will likely continue to be dominated by beef cattle ranching. The importance of the availability of extensive grazing areas to the beef cattle industry was discussed in Part II. As well, the poor to fair condition of much of the Crown range resource due to past overgrazing was identified as a constraint to the expansion of the industry. Due to the significance of beef ranching to the economy, consideration should be given to the establishment of range resource priority over areas of prime range and those portions of the Plan Area displaying significant potential for range enhancement.

Opportunities for enhancement of range resources exist through forest management practices such as selective

thinning to avoid dense regeneration and overgrowth of forest. As well, post-harvest treatment in terms of seeding to forage species can result in increased A.U.M.'s without resulting in a loss of timber production. Consideration should therefore be given to the incorporation of range enhancement guidelines within the Plan policies.

Mining

Mining, at one time the most important economic activity in the Plan Area, has reduced significance today. However, there is moderate to high mineral potential displayed within the Plan Area. Moreover, the considerable exploration activity currently taking place and the development plans recently announced for the Bralorne, Poison Mountain and Blackdome areas indicate that a resurgence in the mining industry may be underway. Because of the uncertainty surrounding the timing, location and magnitude of mineral extraction, the Plan cannot realistically determine mineral resource priority areas. Mineral resources and related activity should therefore be addressed through Plan policies.

SETTLEMENT OUTLOOK

Planning for and servicing of settlement areas is primarily the responsibility of local governments incorporated under the *Municipal Act*. As manager of unalienated and unreserved Crown land, the Ministry of Lands, Parks and Housing supports this mandate through the identification and provision (in conjunction with local government) of Crown land to meet a range of settlement needs. For example, the Ministry supports the settlement mandate of local government in relation to housing by providing financial and/or land assistance for housing purposes. In addition, local economies are assisted through the provision of Crown land for other purposes such as industrial, agricultural or manufacturing use. Finally, local recreation needs are met or provided for by securing Crown lands for both occupational and public recreational use.

Sub-regional planning, therefore, although it focuses on the establishment of resource priorities, must also address settlement on Crown lands. To do so would normally require, among other things, an understanding of local and provincial settlement policy. In the absence of policy direction within a sub-regional context relative to future settlement within the Plan Area, however, the Plan must rely on a general overview of the settlement outlook. This section provides such an overview.

Population growth within the Plan Area during the next decade will likely continue to reflect resource development opportunities. As a result, increased settlement will be positively correlated with resource development in the mining sector. The Ministry of Energy, Mines and Petroleum Resources has estimated that within a ten year time frame, given a favourable marketing atmosphere, mining developments will proceed in the Fish Lake and Poison Mountain areas. Development plans have already been announced for the Bralorne and Black Dome areas. These developments could boost the Plan Area labour force by 1,000 persons, (200-300 new employees per location) and increase settlement needs accordingly. As well, population increases resulting from the development of the Hat Creek coal deposit immediately adjacent to the Plan Area could affect various settlements within the Plan Area, particularly Clinton, should this project be implemented. Due, however, to the uncertainty of immediate mining development, consideration should be given to the establishment of policy guidelines, as opposed to the identification of specific development areas, in order to address the relationship of existing communites to mining-induced settlement increases.

Settlement associated with tourism and recreation opportunites which capitalize on resources which display high recreation capability could be significant if access to the Plan Area is improved and the recreation resources are promoted. Improvement of the Duffey Lake and Hurley Pass Roads, and improved access for mining and logging will likely draw increasing numbers of tourists to view and recreate in areas previously accessible only by pack-trail or rugged all-terrain vehicle roads.

A system of road access to lakes capable of supporting cottaging is largely in place in the eastern portion of the Plan Area. While determination of demand for recreational cottages on Crown lands is difficult, it is reasonable to assume that, within reasonable limits, if quality recreational cottages sites are developed the market place will absorb them. A more significant issue regarding recreational cottage settlement on Crown land is the determination, through more detailed planning of specifically where and under what conditions cottage communities should be developed. A number of lakes within the Bonaparte Plateau, by virtue of significant recreation capability, accessibility and/or varying degrees of existing recreational cottage development, warrant such an assessment and need to be so identified by the Plan. These include Bonaparte, Machete, Young, Eagan, Gun and Duffey lakes.

With current trends for the forestry and agricultural sectors being generally toward stabilization, increases in settlement requirements resulting from these sectors should not be significant during the next decade. Furthermore, the trend in the forest industry is toward centralization of forest processing facilities. Hence, any settlement increases associated with the forest industry will likely occur within the established communities of Lillooet and Clinton.

The attraction and popularity of rural homesites, and the relative scarcity of private lands around settlement centres has resulted in an annual 10-20 percent increase in rural homesite applications for Crown land during the past four years in the Lillooet sub-region. Population growth within the Plan Area could, therefore, result in ongoing increased demands for such homesites, adjacent to established communities.

In view of the above, the Plan should identify specific areas where the Ministry of Lands, Parks and Housing will give consideration to providing opportunity for the range of settlement purposes identified and/or where the Ministry will, in conjunction with local government, undertake more detailed settlement planning.

ISSUES AND PLAN REQUIREMENTS

This section summarizes in tabular form previous sections of the document by listing specific issues or items to be addressed by the Plan which emerge from the data inventory and analysis. Allocative and/or policy requirements of the Plan are then identified for the resolution of these issues. The Plan allocation requirements identified in Table 7 provide the basis for deriving rules of resource priority allocation. The Plan policy requirements identified in the table provide the basis for developing plan policies. This relationship is illustrated below:

FIGURE 6

PROCESS FOR DEVELOPMENT OF PLAN POLICIES AND PRIORITY RESOURCE ALLOCATIONS

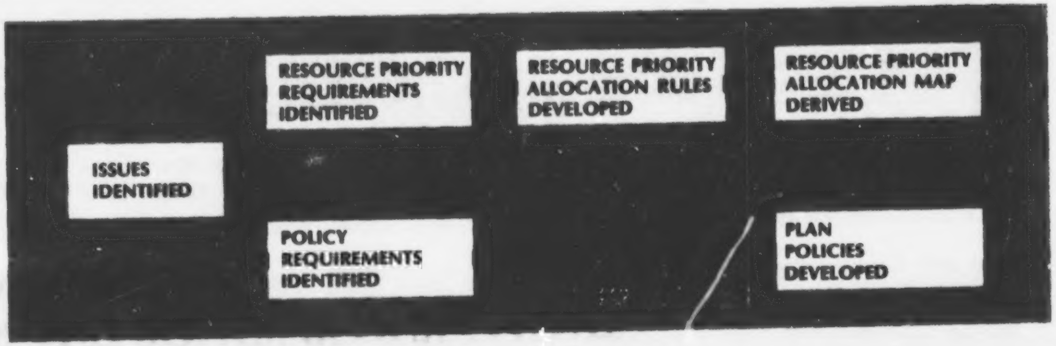


TABLE 7

PLAN ALLOCATION AND POLICY REQUIREMENTS ARISING FROM PLAN ISSUES

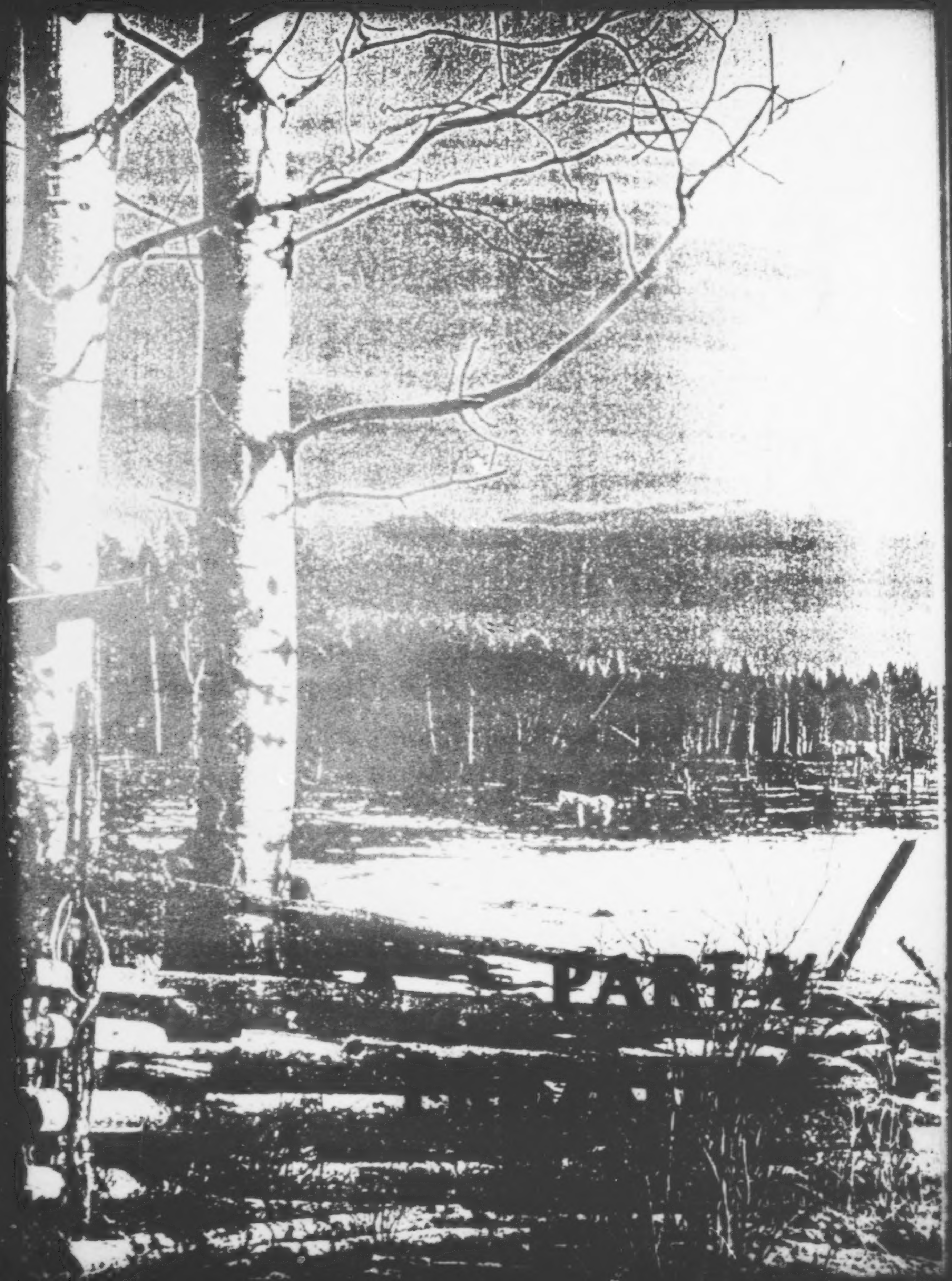
ISSUES/ITEMS TO BE ADDRESSED	PRIORITY ALLOCATION REQUIREMENTS	POLICY REQUIREMENTS

TABLE 7

ISSUES/ITEMS TO BE ADDRESSED	PRIORITY ALLOCATION REQUIREMENTS	POLICY REQUIREMENTS

TABLE 7

ISSUES/ITEMS TO BE ADDRESSED	PRIORITY ALLOCATION REQUIREMENTS	POLICY REQUIREMENTS


PART V

PART V

DETERMINING PRIORITIES FOR CROWN LANDS

INTRODUCTION

A number of methods are available for determining resource priorities for Crown land at the sub-regional level of planning. The specific method used in this Plan both reflects the issues and allocation requirements identified in Part IV, and is related to the degree of compatibility among resource values. In applying this method to the Crown land base of the Clinton Plan Area, a specific sequence of steps is utilized. The following describes the purpose and method of each step which includes:

1. Preparation of a map of composite resource capabilities for the Plan Area—
   Composite Resource Capability Map;
2. Identification of the degree of compatibility or incompatibility of management and use practices associated with different resource capabilities—
   Resource Management Compatibility Matrix;
3. Preparation of a map which simplifies the very complex composite resource capability map by illustrating at a broad level compatible and conflicting resource capabilities within the Plan Area—
   Resource Capability Sieve Map;
4. Derivation of rules for allocating the Crown land base to priority resource areas in a manner that relates to Plan issues and resource compatibility—
   Resource Priority Allocation Rules.

COMPOSITE RESOURCE CAPABILITY MAP

PURPOSE

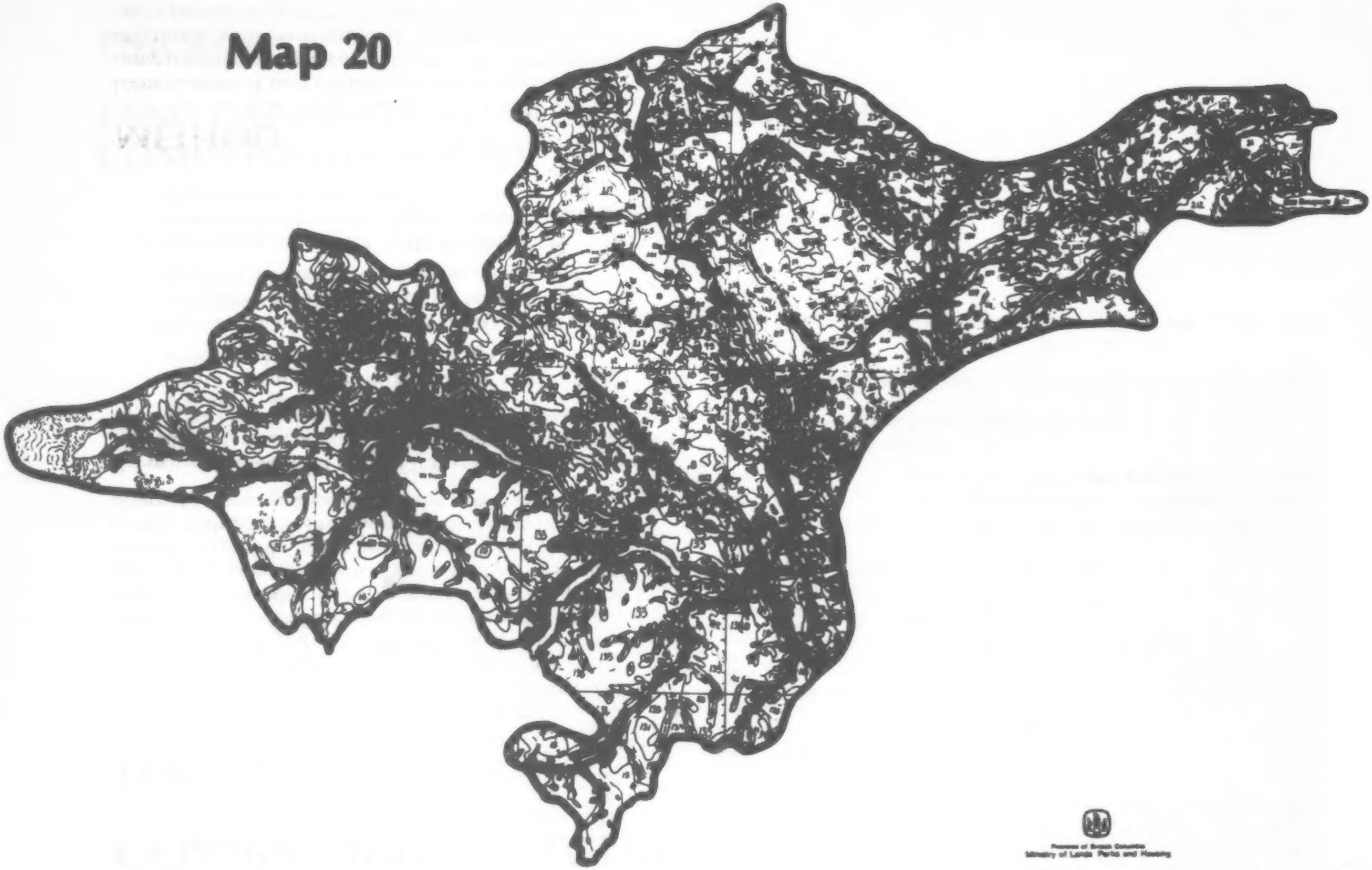
The Composite Resource Capability Map, Map 20, provides a synthesis of the resource capability data identified in the capability maps contained in Part III, *Resource and Crown Land Supply*. In so doing, it displays all possible combinations of resource capabilities within the Plan Area for agriculture, waterfowl, ungulates, outdoor recreation, forestry and range resources. The map is used in conjunction with Appendix I, *Number Key: Composite Resource Capability Map*, on which each unit of the composite map is numbered and the range of capabilities within each map unit listed.[1] The Composite Resource Capability Map is essentially a technical step in the allocation process designed to present capability data in a form that is usable in deriving the Resource Capability Sieve Map and to assist in the preparation of the Plan Map.

METHOD

The method used to derive the composite map involves a simple process of transferring, one map at a time, mapped capability data by overlay technique to a base map and creating map units. As data from each successive capability map is added to the composite map, both a greater number of map units and a more complex mix of resource capabilities within each unit occurs.

1. For example, to identify what resource capabilities are contained in map unit number "24", one merely refers to the number key item number 24 which indicates that moderate agricultural, prime recreation and moderate forestry capabilities are present. All map units numbered "24" will contain an identical mix of resource capabilities.

Map 20


Province of British Columbia
Ministry of Lands Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Composite Resource Capability Map
map unit used in conjunction with number key; number shows all possible resource capabilities within unit

LAND CAPABILITY/ RESOURCE MANAGEMENT COMPATIBILITY MATRIX

PURPOSE

Specific use and/or resource management practices can be associated with each resource capability within the Plan Area. In some instances, use or management practices related to a given capability could have a negative effect upon or be incompatible with the maintenance of an alternative capability value. In other instances, specific use or management practices pursuant to a particular resource capability might be moderately or highly compatible with practices followed in association with an alternate resource capability on the same land area.

Recognizing that much of the Plan Area displays multiple capabilities for use or management, an understanding of the degree of intercompatibility provides the basis for:

- identification of specific portions of the Plan Area which display potential for multiple use;
- identification of areas which display resource capabilities having potential for land use and resource management conflicts;
- identifying uses which could be compatibly associated with or permitted in "priority areas" identified on the plan allocation map.

METHOD

Identification of land capability/resource management compatibilities illustrated in Figure 7 was undertaken utilizing a "consensus approach" among resource managers participating on the Clinton Planning Task Group.

In identifying the degree of compatibility, the Task Group made a number of land use and resource management assumptions as outlined below:

Prime Forestry
(Forest Site Classes 1-3)

Assumption: Intensive forest management practices for a 100 year rotation would apply including fertilization, thinning and reforestation as appropriate.

Prime Recreation
(C.L.I. Recreation Capability Classes 1-3)

Assumption: Management for intensive recreational use and associated development would occur including recreational cottages.

Prime Ungulate/ Prime Waterfowl
(C.L.I. Ungulate Capability Classes 1-2)
(C.L.I. Waterfowl Capability Classes 1-3)

Assumption: Intensive habitat management would occur including species transplants, vegetation enhancement and population thinning.

Prime Agriculture
(C.L.I. Agricultural Capability Classes 1-3)

Assumption: Cropping and fencing of fields would occur.

FIGURE 7

LAND CAPABILITY/RESOURCE MANAGEMENT COMPATIBILITY MATRIX

RESOURCE MANAGEMENT
ACTIVITY
PURSUANT TO:

LAND CAPABILITY GROUPING	Agr 1-3	Agr 4	Agr 5	Rng 1	Rng 2	Rng 3	For 1-3	For 4	For 5	Rec 1-3	Rec 4	Rec 5	Ung 1-2	Ung 3	Ung 4
Rng 1	[illegible]	[illegible]													
Rng 2	[illegible]	[illegible]	[illegible]												
Rng 3	[illegible]	[illegible]	[illegible]												
For 1-3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]									
For 4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]									
For 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]									
Rec 1-3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	L	L	I						
Rec 4	L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
Rec 5	L	L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]						
Ung 1-2	L	L	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	M	M	L	L	M			
Ung 3	L	L	[illegible]	[illegible]	[illegible]	[illegible]	L	H	H	M	M	M			
Ung 4	L	L	M	M	[illegible]	[illegible]	M	H	H	M	M	H			
Wtfl 1-3	L	L	L	M	M	H	L	M	M	I	M	I	[illegible]	[illegible]	[illegible]
Wtfl 4	L	L	M	M	H	H	M	[illegible]	H	M	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wtfl 5	L	L	M	[illegible]	H	H	M	[illegible]	H	M	H	H	[illegible]	[illegible]	[illegible]

Agr = Agriculture
Rng = Range
For = Forestry

Rec = Recreation
Ung = Ungulate
Wtfl = Waterfowl

H = High Compatibility
M = Moderate Compatibility
L = Low Compatibility
I = Incompatible

INTRODUCTION

The sub-regional level of Crown land planning is a process for establishing broad-level use and management priorities for available Crown lands and prescribing general policies to reflect preferred use and management practices. In very general terms, this process is intended to address, in an overview manner, both the supply of and demand for Crown land and resources to ensure that sufficient resources are available to enable Crown agencies to discharge their respective mandates.

Assessment of the available "supply" of Crown resources is based on broad-level Canada Land Inventory land capability data. This data defines the natural biological and physical ability of the land to support a given management activity or use. Supply within the Clinton Plan Area is documented in Part III which identifies the general nature, magnitude and distribution of key resource values.

Data for assessing broad level demands for Crown land is not, however, as readily available. Government agencies were for the most part unable to specify, at the sub-regional level, requirements for Crown land relative to their respective mandates or to define operational objectives or strategic targets from which an assessment of Crown land demands could be made. A review of agency objectives (supplied by the agencies on the Clinton Task Group) revealed that most were generalized statements of intent within a provincial context which could not be refined to be applicable to the Plan Area. Furthermore, the Task Group was unable to determine the importance of an agency's objectives relative to those of other agencies. The inherent result was that all objectives were considered to be of equal importance and a priorization of resource capabilities based on ranked agency objectives could not be made.

Although they provide only limited direction for assessing resource allocation priorities, agency objective statements are at least generally indicative of the expectations of government regarding the use and management of Crown resources within the Plan Area. As well, the statements can assist in identifying Plan allocation categories, and in deriving various Plan policy items.

In the absence of demand data or operational objectives and targets at a sub-regional scale for the Plan Area, the Plan must rely on other means to determine resource allocation and Plan policy requirements. The purpose of this section is to "pull together" these alternative data. Toward this end:

- the relative importance of the key economic sectors within the sub-regional economy and the Plan Area economic and settlement outlook are reviewed;
- issues which emerge from the above overview and the analysis of the characteristics of the sub-region and the resource and Crown land supply contained in Parts II and III are identified;
- priority allocation and policy requirements of the Plan to resolve these issues are then outlined.

It is the synthesis of issues and the associated resource priority allocation and policy requirements which provides the direction for and constitutes the basis of the Plan.

ECONOMIC AND SETTLEMENT OUTLOOK

ECONOMIC OUTLOOK

Economic activity within the Plan Area is closely associated with the natural resource base. Part II reviewed this activity on a sectoral basis. The following overviews both the relative importance of the various sectors to the local economy and the economic outlook of each. General implications for the allocation of the Crown land base to resource priorities are then described.

The relative importance of the resource sectors to the Plan Area economy as a whole can be reasonably assessed by comparison of annual gross values of production. In the absence of published small area statistics, the 1979 values for key resource sectors were estimated as follows: forestry (including milling), $30 million[1]; tourism expenditures, $4 million; farm cash receipts, $2.6 million; mining (primarily sand and gravel), $1 million.

Forestry

The forest industry, with production valued at approximately $30 million in 1979, is clearly the dominant resource sector in the Clinton Plan Area. Even when lumber markets are poor (as in 1980) the gross value of wood products considerably exceeds that of the other resource sectors. It is during periods of poor lumber markets that the importance of the forest industry to the sub-regional economy is most noticeable as construction and business activity quickly falls off in response to reduced earnings by forest workers. Conversely, during periods of expanding forest activity, construction and business activity in the local communities increases. Virtually all manufacturing activity currently taking place in the Plan Area is associated with the forest products industry.

Allocation of much of the productive forest land in the Plan Area to forest resource priority is required if forestry is to continue as the key component of the economic base within the Plan Area. Assuming that present production levels continue, statistics indicate that if *all* productive forest land is set aside for timber production purposes, timber supplies from the Plan Area could fall short of mill requirements within thirty to forty years.

1. Calculated using a log recovery factor of 575 board feet per cunit and assuming a price of $200 per thousand board feet of sawn dimensional lumber.

Tourism

Tourism and outdoor recreation represent a significant component of the sub-regional economy, generating $4 million annually. In addition, this sector has shown considerable growth in recent years. Proximity to the increasing populations of the Kamloops and Vancouver areas will likely contribute to strong tourism oriented demands over the foreseeable future as long as the high capability outdoor recreation resources, the abundant fish and wildlife resources and the general scenic attributes of the sub-region are protected. Those areas displaying high capability for intensive recreation use, therefore, should be considered for recreation priority allocation. Protection of critical fish and ungulate habitats will also be required to ensure the long-term viability of fishing, hunting and non-consumptive recreation activities associated with fish and wildlife in the Plan Area. Other recreational pursuits such as cross-country skiing and hiking are often compatible with other resource uses of the land base and can normally be accommodated within other resource priority areas.

Agriculture

Agriculture, with farm cash receipts estimated at $2.6 million in 1978, is also an important resource activity within the Plan Area in terms of gross revenues. Agricultural activity is and will likely continue to be dominated by beef cattle ranching. The importance of the availability of extensive grazing areas to the beef cattle industry was discussed in Part II. As well, the poor to fair condition of much of the Crown range resource due to past overgrazing was identified as a constraint to the expansion of the industry. Due to the significance of beef ranching to the economy, consideration should be given to the establishment of range resource priority over areas of prime range and those portions of the Plan Area displaying significant potential for range enhancement.

Opportunities for enhancement of range resources exist through forest management practices such as selective

thinning to avoid dense regeneration and overgrowth of forest. As well, post-harvest treatment in terms of seeding to forage species can result in increased A.U.M.'s without resulting in a loss of timber production. Consideration should therefore be given to the incorporation of range enhancement guidelines within the Plan policies.

Mining

Mining, at one time the most important economic activity in the Plan Area, has reduced significance today. However, there is moderate to high mineral potential displayed within the Plan Area. Moreover, the considerable exploration activity currently taking place and the development plans recently announced for the Bralorne, Poison Mountain and Blackdome areas indicate that a resurgence in the mining industry may be underway. Because of the uncertainty surrounding the timing, location and magnitude of mineral extraction, the Plan cannot realistically determine mineral resource priority areas. Mineral resources and related activity should therefore be addressed through Plan policies.

SETTLEMENT OUTLOOK

Planning for and servicing of settlement areas is primarily the responsibility of local governments incorporated under the *Municipal Act*. As manager of unalienated and unreserved Crown land, the Ministry of Lands, Parks and Housing supports this mandate through the identification and provision (in conjunction with local government) of Crown land to meet a range of settlement needs. For example, the Ministry supports the settlement mandate of local government in relation to housing by providing financial and/or land assistance for housing purposes. In addition, local economies are assisted through the provision of Crown land for other purposes such as industrial, agricultural or manufacturing use. Finally, local recreation needs are met or provided for by securing Crown lands for both occupational and public recreational use.

Sub-regional planning, therefore, although it focuses on the establishment of resource priorities, must also address settlement on Crown lands. To do so would normally require, among other things, an understanding of local and provincial settlement policy. In the absence of policy direction within a sub-regional context relative to future settlement within the Plan Area, however, the Plan must rely on a general overview of the settlement outlook. This section provides such an overview.

Population growth within the Plan Area during the next decade will likely continue to reflect resource development opportunities. As a result, increased settlement will be positively correlated with resource development in the mining sector. The Ministry of Energy, Mines and Petroleum Resources has estimated that within a ten year time frame, given a favourable marketing atmosphere, mining developments will proceed in the Fish Lake and Poison Mountain areas. Development plans have already been announced for the Bralorne and Black Dome areas. These developments could boost the Plan Area labour force by 1,000 persons, (200-300 new employees per location) and increase settlement needs accordingly. As well, population increases resulting from the development of the Hat Creek coal deposit immediately adjacent to the Plan Area could affect various settlements within the Plan Area, particularly Clinton, should this project be implemented. Due, however, to the uncertainty of immediate mining development, consideration should be given to the establishment of policy guidelines, as opposed to the identification of specific development areas, in order to address the relationship of existing communites to mining-induced settlement increases.

Settlement associated with tourism and recreation opportunites which capitalize on resources which display high recreation capability could be significant if access to the Plan Area is improved and the recreation resources are promoted. Improvement of the Duffey Lake and Hurley Pass Roads, and improved access for mining and logging will likely draw increasing numbers of tourists to view and recreate in areas previously accessible only by pack-trail or rugged all-terrain vehicle roads.

A system of road access to lakes capable of supporting cottaging is largely in place in the eastern portion of the Plan Area. While determination of demand for recreational cottages on Crown lands is difficult, it is reasonable to assume that, within reasonable limits, if quality recreational cottages sites are developed the market place will absorb them. A more significant issue regarding recreational cottage settlement on Crown land is the determination, through more detailed planning of specifically where and under what conditions cottage communities should be developed. A number of lakes within the Bonaparte Plateau, by virtue of significant recreation capability, accessibility and/or varying degrees of existing recreational cottage development, warrant such an assessment and need to be so identified by the Plan. These include Bonaparte, Machete, Young, Eagan, Gun and Duffey lakes.

With current trends for the forestry and agricultural sectors being generally toward stabilization, increases in settlement requirements resulting from these sectors should not be significant during the next decade. Furthermore, the trend in the forest industry is toward centralization of forest processing facilities. Hence, any settlement increases associated with the forest industry will likely occur within the established communities of Lillooet and Clinton.

The attraction and popularity of rural homesites, and the relative scarcity of private lands around settlement centres has resulted in an annual 10-20 percent increase in rural homesite applications for Crown land during the past four years in the Lillooet sub-region. Population growth within the Plan Area could, therefore, result in ongoing increased demands for such homesites, adjacent to established communities.

In view of the above, the Plan should identify specific areas where the Ministry of Lands, Parks and Housing will give consideration to providing opportunity for the range of settlement purposes identified and/or where the Ministry will, in conjunction with local government, undertake more detailed settlement planning.

ISSUES AND PLAN REQUIREMENTS

This section summarizes in tabular form previous sections of the document by listing specific issues or items to be addressed by the Plan which emerge from the data inventory and analysis. Allocative and/or policy requirements of the Plan are then identified for the resolution of these issues. The Plan allocation requirements identified in Table 7 provide the basis for deriving rules of resource priority allocation. The Plan policy requirements identified in the table provide the basis for developing plan policies. This relationship is illustrated below:

FIGURE 6

PROCESS FOR DEVELOPMENT OF PLAN POLICIES AND PRIORITY RESOURCE ALLOCATIONS

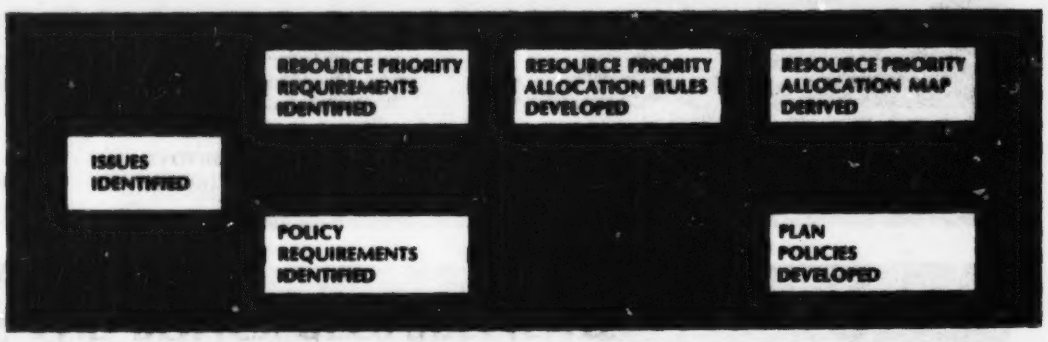


TABLE 7

PLAN ALLOCATION AND POLICY REQUIREMENTS ARISING FROM PLAN ISSUES

ISSUES/ITEMS TO BE ADDRESSED	PRIORITY ALLOCATION REQUIREMENTS	POLICY REQUIREMENTS
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

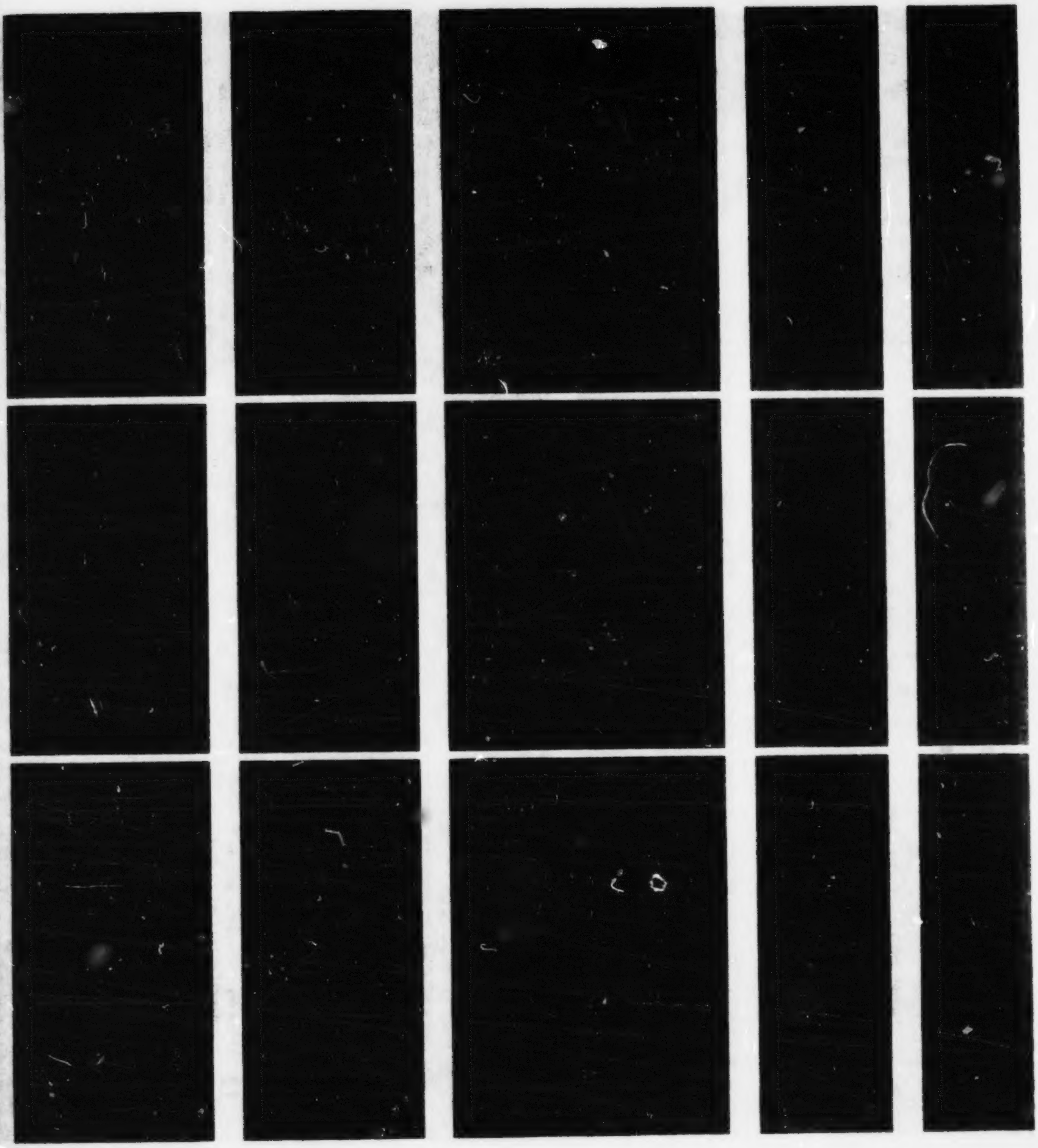
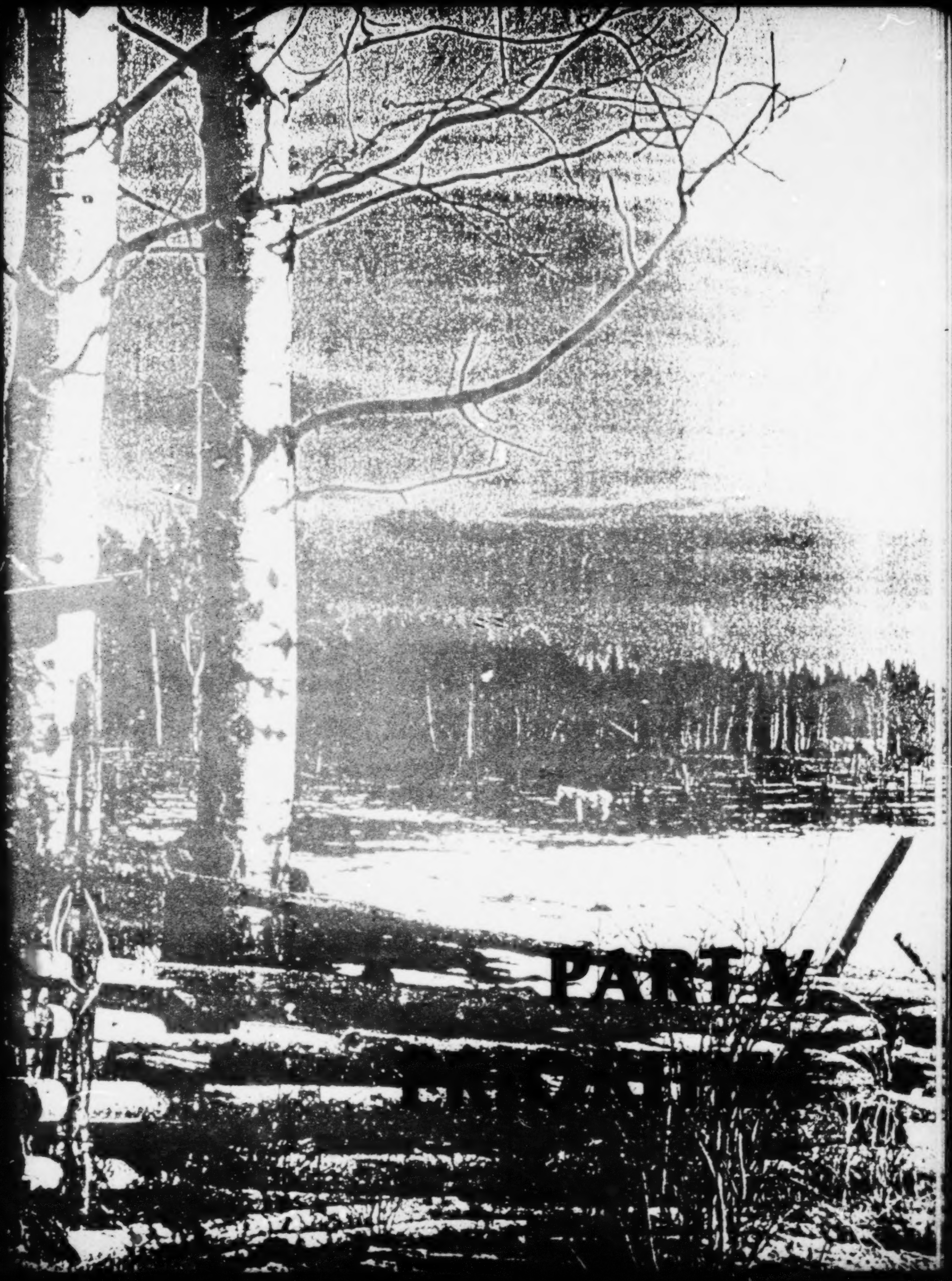


TABLE 7

ISSUES/ITEMS TO BE ADDRESSED	PRIORITY ALLOCATION REQUIREMENTS	POLICY REQUIREMENTS

TABLE 7

ISSUES/ITEMS TO BE ADDRESSED	PRIORITY ALLOCATION REQUIREMENTS	POLICY REQUIREMENTS
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]


PART V

PART V

DETERMINING PRIORITIES FOR CROWN LANDS

INTRODUCTION

A number of methods are available for determining resource priorities for Crown land at the sub-regional level of planning. The specific method used in this Plan both reflects the issues and allocation requirements identified in Part IV, and is related to the degree of compatibility among resource values. In applying this method to the Crown land base of the Clinton Plan Area, a specific sequence of steps is utilized. The following describes the purpose and method of each step which includes:

1. Preparation of a map of composite resource capabilities for the Plan Area—
Composite Resource Capability Map;
2. Identification of the degree of compatibility or incompatibility of management and use practices associated with different resource capabilities—
Resource Management Compatibility Matrix;
3. Preparation of a map which simplifies the very complex composite resource capability map by illustrating at a broad level compatible and conflicting resource capabilities within the Plan Area—
Resource Capability Sieve Map;
4. Derivation of rules for allocating the Crown land base to priority resource areas in a manner that relates to Plan issues and resource compatibility—
Resource Priority Allocation Rules.

COMPOSITE RESOURCE CAPABILITY MAP

PURPOSE

The Composite Resource Capability Map, Map 20, provides a synthesis of the resource capability data identified in the capability maps contained in Part III, *Resource and Crown Land Supply.* In so doing, it displays all possible combinations of resource capabilities within the Plan Area for agriculture, waterfowl, ungulates, outdoor recreation, forestry and range resources. The map is used in conjunction with Appendix I, *Number Key: Composite Resource Capability Map,* on which each unit of the composite map is numbered and the range of capabilities within each map unit listed.[1] The Composite Resource Capability Map is essentially a technical step in the allocation process designed to present capability data in a form that is usable in deriving the Resource Capability Sieve Map and to assist in the preparation of the Plan Map.

METHOD

The method used to derive the composite map involves a simple process of transferring, one map at a time, mapped capability data by overlay technique to a base map and creating map units. As data from each successive capability map is added to the composite map, both a greater number of map units and a more complex mix of resource capabilities within each unit occurs.

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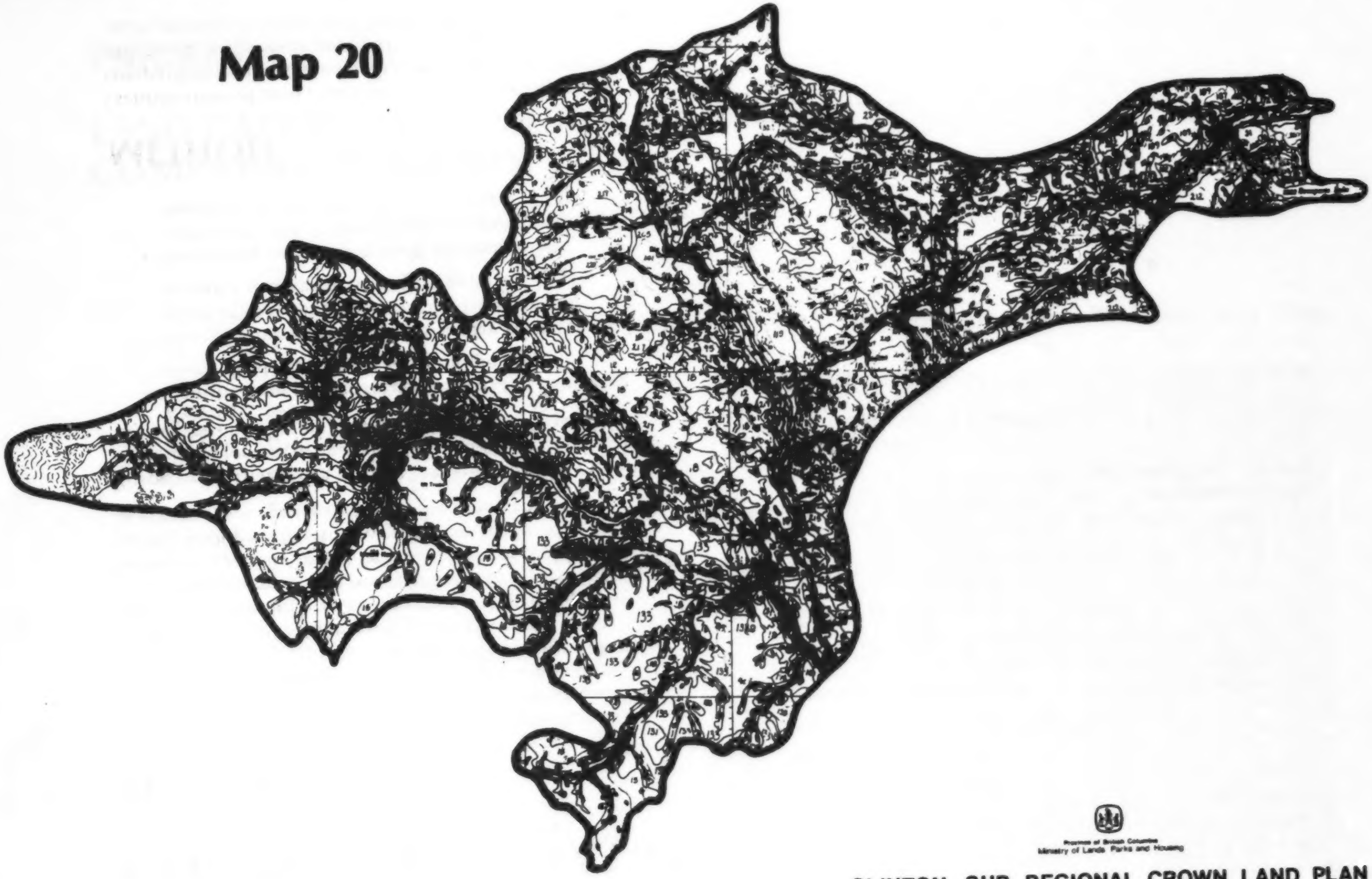
1. For example, to identify what resource capabilities are contained in map unit number "24", one merely refers to the number key item number 24 which indicates that moderate agricultural, prime recreation and moderate forestry capabilities are present. All map units numbered "24" will contain an identical mix of resource capabilities.

Map 20



Province of British Columbia
Ministry of Lands, Parks and Housing

CLINTON SUB-REGIONAL CROWN LAND PLAN

Composite Resource Capability Map

map unit used in conjunction with number key; number shows all possible resource capabilities within unit

LAND CAPABILITY/ RESOURCE MANAGEMENT COMPATIBILITY MATRIX

PURPOSE

Specific use and/or resource management practices can be associated with each resource capability within the Plan Area. In some instances, use or management practices related to a given capability could have a negative effect upon or be incompatible with the maintenance of an alternative capability value. In other instances, specific use or management practices pursuant to a particular resource capability might be moderately or highly compatible with practices followed in association with an alternate resource capability on the same land area.

Recognizing that much of the Plan Area displays multiple capabilities for use or management, an understanding of the degree of intercompatibility provides the basis for:

- identification of specific portions of the Plan Area which display potential for multiple use;
- identification of areas which display resource capabilities having potential for land use and resource management conflicts;
- identifying uses which could be compatibly associated with or permitted in "priority areas" identified on the plan allocation map.

METHOD

Identification of land capability/resource management compatibilities illustrated in Figure 7 was undertaken utilizing a "consensus approach" among resource managers participating on the Clinton Planning Task Group.

In identifying the degree of compatibility, the Task Group made a number of land use and resource management assumptions as outlined below:

Prime Forestry
(Forest Site Classes 1-3)

Assumption: Intensive forest management practices for a 100 year rotation would apply including fertilization, thinning and reforestation as appropriate.

Prime Recreation
(C.L.I. Recreation Capability Classes 1-3)

Assumption: Management for intensive recreational use and associated development would occur including recreational cottages.

Prime Ungulate/ Prime Waterfowl
(C.L.I. Ungulate Capability Classes 1-2)
(C.L.I. Waterfowl Capability Classes 1-3)

Assumption: Intensive habitat management would occur including species transplants, vegetation enhancement and population thinning.

Prime Agriculture
(C.L.I. Agricultural Capability Classes 1-3)

Assumption: Cropping and fencing of fields would occur.

FIGURE 7

LAND CAPABILITY/RESOURCE MANAGEMENT COMPATIBILITY MATRIX

RESOURCE MANAGEMENT ACTIVITY PURSUANT TO:

LAND CAPABILITY GROUPING	Agr 1-3	Agr 4	Agr 5	Rng 1	Rng 2	Rng 3	For 1-3	For 4	For 5	Rec 1-3	Rec 4	Rec 5	Ung 1-2	Ung 3	Ung 4
Rng 1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rng 2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rng 3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
For 1-3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
For 4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
For 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rec 1-3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	I	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rec 4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Rec 5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ung 1-2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	M	L	L	[illegible]	[illegible]	[illegible]	[illegible]
Ung 3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	H	M	M	[illegible]	[illegible]	[illegible]	[illegible]
Ung 4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	H	H	H	M	M	[illegible]	[illegible]	[illegible]	[illegible]
Wtfl 1-3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wtfl 4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wtfl 5	L	L	M	H	H	H	M	H	H	M	H	H	[illegible]	[illegible]	[illegible]

Agr = Agriculture
Rng = Range
For = Forestry

Rec = Recreation
Ung = Ungulate
Wtfl = Waterfowl

H = High Compatibility
M = Moderate Compatibility
L = Low Compatibility
I = Incompatible

RESOURCE CAPABILITY SIEVE MAP

PURPOSE

The purpose of the Resource Capability Sieve Map, Map 21, is to simplify the very complex composite map of resource capabilities by isolating the location and extent of compatible and incompatible resource values within the Plan Area. Used in conjunction with the Plan allocation requirements, the sieve map provides the Task Group with a more specific basis upon which to determine priorities for Crown land.

METHOD

The Resource Capability Sieve Map is based on the land capability/resource management compatibility matrix and identifies: single occurrences of prime resource values[1]; areas of moderate or limited resource values which are compatible; and areas having high, moderate or limited resource values which conflict.

RESOURCE PRIORITY ALLOCATION RULES

INTRODUCTION

The "sieve map", by isolating single occurrences of prime resource values and compatible and conflicting resource values, simplifies the very complex composite map of resource capabilities. The sieve map does not constitute a land allocation map. Rather it is used to assist in deriving the allocation map. The method used to derive the allocation map is based on a series of "rules" that are founded on the allocation requirements identified in Part IV. Once allocation rules are in place, allocation of land to broad resource priority areas involves a process of relating each unit within the sieve map to the allocation rules and arriving at the appropriate priority allocation.

ALLOCATION RULES

The specific resource priority allocation rules developed by the interagency Planning Task Group are outlined below:

1. "Single occurrences of prime resource values" identified on the sieve map will assume a **priority area allocation** unless otherwise specified.
2. Subject to other rules, areas of "compatible resource values" identified on the sieve map which exhibit capabilities all of which are associated with responsibilities of the Ministry of Forests[2] and which are located within areas of predominantly "prime forest (timber) values" on the sieve map will be allocated to **timber/range priority**.
3. "Compatible resource values" identified on the sieve map which display moderate recreation capability and which occur within a corridor which displays predominantly "prime recreation values" as identified on the sieve map and along which there is road access will be allocated to **recreation priority**.
4. "Compatible resource values" identified on the sieve map adjacent to lakes, which display moderate or low recreation capability and which border "prime recreation values" identified on the sieve map will be allocated to **recreation priority**.

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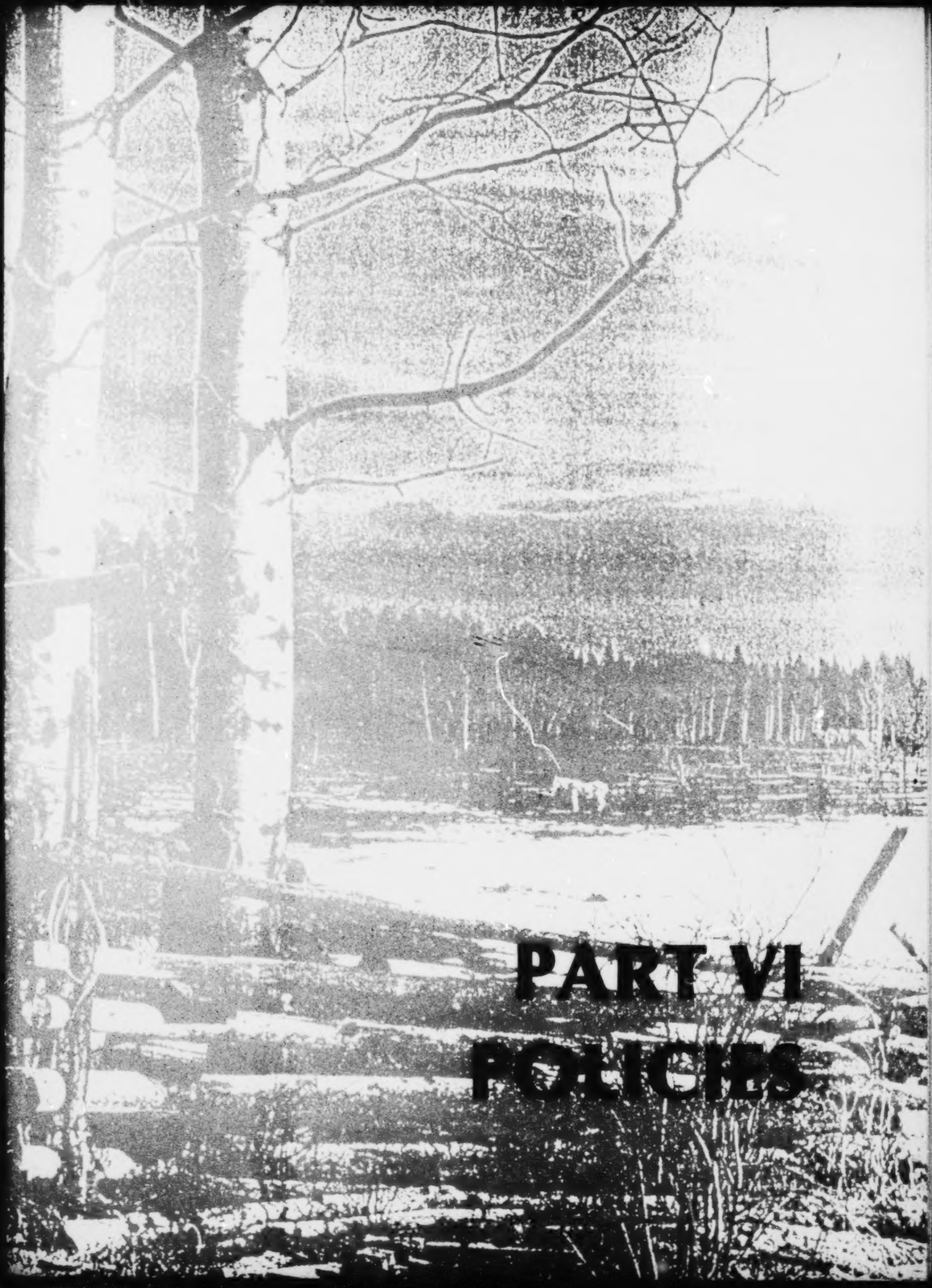
1. The interagency task group made the assumption that prime resource capabilities are of equal importance in furthering agency objectives.
2. Moderate and low forestry, range, ungulate and recreation capability, and low agricultural capability which is considered range land.

Map 21

Province of British Columbia
Ministry of Lands, Parks and Housing
CLINTON SUB-REGIONAL CROWN LAND PLAN
Resource Capability Sieve Map
Single Occurrences Prime Resource Values;
agriculture
range
forestry
outdoor recreation
ungulates
waterfowl
Compatible Resource Values
Conflicting Resource Values

5. Lakes which demonstrate significant sport fishing activity and which display any recreation capability will be allocated to **recreation priority** (i.e. Scott Lake).
6. "Prime recreation values" and "compatible resource values" identified on the sieve map, having moderate recreation capability, which are located among predominantly "prime forest (timber) values" and to which there is no vehicular access will be allocated to **timber-range priority**. However, where investigations have led to the identification of prime recreation values within areas displaying predominantly prime forest values, with capability to provide high quality, roadless, extensive recreation, they are to be allocated to **recreation priority**.
7. "Compatible resource values" identified on the sieve map which display moderate ungulate capability and which are located adjacent to "prime ungulate values" as identified on the sieve map and which display no forest (timber) capability will be allocated to **wildlife priority**.
8. Concentrations of "conflicting resource values" identified on the sieve map will be allocated as **resource option areas**.



PART VI
POLICIES

PART VI

PLAN POLICIES

1.0 INTRODUCTION

Preceding sections document Plan goals and objectives, biophysical and socio-economic data, methods employed for data analysis and the analysis from which resource allocations and Plan policies are derived. This section contains the Plan policies. It is the Plan policies and the Plan Map which constitute the Clinton Crown Land Plan.

Resource priority allocations defined on the Plan Map represent Crown lands within the Clinton sub-region which government agencies agree are most appropriately managed for uses directly related to the identified priority resource or uses that are compatible. This approach for broad level resource allocation is founded on the principle of multiple use. This principle recognizes that, although a particular resource value may be deemed more important relative to others occurring on the same unit of land, a wide range of additional uses can and should be compatibly associated with the identified priority resource. Policies pursuant to each priority allocation describe the allocation, outline the management emphasis, indicate associated uses and specify management guidelines.

In addition to priority allocations, guidelines are specified for a number of major land use activities which, although incompatible with priority allocations, must be provided for. These include settlement and mining activity.

To permit more detailed allocation of Crown resources to specific use or management, and to refine the broad direction provided by this Crown land plan, Plan policies identify further planning needs. These plans will be prepared in accordance with the management intent of the priority allocation and guidelines respecting further planning and will reflect more detailed data and local requirements.

2.0 DEFINITION OF KEY TERMS

2.1 ASSOCIATED USE

A general term to describe the wide range of uses or management activities which are generally compatible with a priority resource, which may or may not be directly related to or dependent on the priority resource and which may be classified as a preferred, secondary or conditional use.

2.2 COMPATIBLE

In the context of the Plan, this term characterizes use or management activities which can occur in combination with a given resource without conflict.

2.3 CONDITIONAL USE

An associated use or management activity which is normally not dependent on the identified priority resource and which can be generally compatible in association with the priority resource only if specified conditions are met.

2.4 PREFERRED USE

An associated use or management activity which is directly related to or dependent on the identified priority resource and for which preference should be given over secondary and conditional uses.

2.5 PRIORITY RESOURCE

A resource which is recognized as being the most important relative to other resource values occurring on the same unit of land.

2.6 PRIORITY RESOURCE AREA

A portion of the land base which is identified as being most appropriately managed for uses directly related to the priority resource, but not to the exclusion of uses or activities associated with other resource values located in the same area which are compatible with the priority resource.

2.7 SECONDARY USE

An associated use or management activity which is dependent on resource values other than the identified priority resource but which can be compatibly associated with the priority resource.

3.0 GENERAL PROVISIONS

3.1 The policy guidelines contained in this part together with the Plan Map constitute the Crown Land Plan.

3.2 This Crown Land Plan contains policies and guidelines that will provide direction to the Minister of Lands, Parks and Housing in carrying out the administration of Crown land within the Plan Area pursuant to the **Land Act**.

3.3 The Plan Map illustrates the general location and distribution of land use designations. Boundaries and alignments are to be considered approximate. Flexibility in boundary interpretation is permitted provided that such interpretations are founded on more detailed planning pursuant to this Plan and provided that they do not impair the intent of the Plan.

3.4 Because of the approximate nature of the boundaries indicated on the Plan Map, reservations of Crown land made pursuant to provincial statutes to implement this Plan are to be subject to interagency referral.

3.5 Private lands and Indian Reserves are not governed by the policies and guidelines of this Plan.

3.6 Identification of participating agencies and agency responsibilities for further planning identified by this Plan is not to be interpreted as being all-inclusive.

3.7 Existing plans, strategies and initiatives of government will constitute a portion of the data base for more detailed planning within priority areas.

3.8 This Plan in no way absolves Crown land applicants and tenure holders from compliance with Official Plans and zoning regulations of local government, relevant B.C. and Federal statutes, terms and conditions of existing and future Crown land tenures, and Land Administration Policy and Procedures pursuant to the **Land Act**.

3.9 The provisions of this Crown Land Plan will reinforce and supplement, but will not supercede the Land Administration Policy and Procedures established in the L.A.P.P. Manual of the Ministry of Lands, Parks and Housing.

3.10 Upon adoption of this Plan, the Ministry of Lands, Parks and Housing will initiate discussions with other provincial agencies for the purpose of developing detailed strategies for implementing planning initiatives identified in the Plan. Once such strategies are developed the Ministry will enter into appropriate inter-ministry agreements where these are considered desirable.

3.11 Periodic reviews of land reservations and tenures pursuant to the **Land Act** undertaken by the Ministry of Lands, Parks and Housing will respect the policies and guidelines of this Plan.

3.12 The policies and guidelines of the Plan will be in effect for a period of five years from the date of its adoption.

3.13 A comprehensive evaluation and review of the Plan will be undertaken five years from the date of its adoption.

4.0 AGRICULTURE PRIORITY AREA

4.1 DESCRIPTION

Lands allocated to Agriculture Priority are characterized by moderate to high capabilities for agricultural production. These capability values assume the availability of water for irrigation. Such lands are primarily located on the Bonaparte Plateau and to a lesser extent on benches along the Fraser River.

4.2 MANAGEMENT INTENT

Management emphasis is directed toward both protecting the land base and working with appropriate government agencies to investigate and provide opportunities for developing the potential for agricultural production on these lands. The intent is to encourage expansion of existing farm operations where the necessary resources, including water for irrigation, are available, and to permit new farms to be developed where viable new farm units can be established.

4.3 ASSOCIATED USES[1]

A wide range of uses and management activities may be compatibly associated with Agriculture Priority Areas, particularly timber, range and wildlife management. However, the maintenance of agricultural potential and the provision of opportunities for the expansion and development of farm units is to take precedence. Table 8 summarizes a range of land uses and the degree to which each is compatible with the Agriculture Priority allocation. These are outlined below.

1. Associated uses identified for Agriculture Priority Areas are applicable so long as the land base remains Crown land. In the event that alienation occurs to achieve the management intent, some identified associated uses could be foregone.

4.3.1 Preferred Uses

a. Field cropping
b. Horticulture
c. Animal husbandry

4.3.2 Secondary Uses

a. Domestic grazing
b. Water management, including lake storage and stream regulation as required for irrigation purposes
c. Dispersed recreation
d. Sport hunting and fishing
e. Wildlife viewing
f. Recreational corridor and trail system development

4.3.3 Conditional Uses

a. Timber Management

Pending the development and alienation of land for agricultural production, timber harvesting is permitted throughout Agricultural Priority Areas. Timber management practices should, however, recognize that lands may later be alienated for agricultural production.

Timber road development should be undertaken in consultation with the Ministry of Agriculture and Food to minimize impacts on the potential of the land for agricultural production.

Forested lands within Agriculture Priority Areas should remain outside the Provincial Forest pending the finalization of more detailed plans as specified in Section 4.5.

b. Wildlife Management

Wildlife management is permitted throughout Agriculture Priority Areas but this activity should recognize that the priority use of these lands is the development and alienation of land for agricultural production.

c. Transportation and Utility Corridors

Initiatives to expand existing corridors or develop new corridors must ensure that agricultural potential is not unduly impaired.

d. Mineral Exploration

Mineral exploration is permitted throughout Agricultural Priority Areas subject to established review processes and consistency with Agriculture Priority Area policies.

TABLE 8

PRIORITY AREA LAND USE ASSOCIATIONS

ASSOCIATED USES \ PRIORITY AREAS	RECREATION	WILDLIFE	AGRICULTURE	TIMBER/RANGE
RECREATION	[illegible]	[illegible]	[illegible]	[illegible]
TIMBER MANAGEMENT	[illegible]	[illegible]	[illegible]	[illegible]
AGRICULTURE	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]

P = Preferred
S = Secondary
C = Conditional

MANAGEMENT GUIDELINES

4.4 The production of field crops within the Plan Area is limited by the availability of water for irrigation. Agricultural development within Agriculture Priority Areas, therefore, should be planned in accordance with guide-lines for further planning outlined in Section 4.5. below.

4.5 FURTHER PLANNING GUIDELINES

Planning of Agriculture Priority Areas will involve evaluation of the suitability of the land for agricultural purposes and should address, among other things, the following:

a. the extent and quality of agricultural land
b. the availability of water for irrigation
c. the availability of Crown range to sustain increased numbers of cattle
d. the proximity of existing ranch operations
e. the potential for expanding existing units
f. the viability of new farm units
g. the potential benefits from land allocation to existing farm units as opposed to the establishment of new farm units
h. the identification and assignment to an alternative resource use those lands and resources currently within Agriculture Priority Areas, which, after more detailed investigation and planning as outlined in the foregoing are deemed most suitable for alternative use or management.

Planning within Agriculture Priority Areas should be undertaken by the Ministry of Lands, Parks and Housing, Regional Operations Division, in conjunction with the Ministry of Agriculture and Food, the Ministry of Environment and the Ministry of Forests.

5.0 RECREATION PRIORITY AREA

5.1 DESCRIPTION

Lands allocated to Recreation Priority are characterized by moderate to high recreation capabilities for both dispersed and intensive recreational activities. They generally comprise a linear network following major stream and valley bottoms along which there is public road access, but include as well a number of lakes on the Bonaparte Plateau and remote wilderness areas in the Tyaughton portion of the Plan Area. Recreation opportunities include cottaging, camping, angling, boating and viewing adjacent to lakes and streams. More widely dispersed are opportunities for sport hunting and fishing, scenic drives, trail riding and backpacking.

5.2 MANAGEMENT INTENT

Management emphasis within Recreation Priority Areas should focus on the preservation of significant recreation values and the provision of a range of increased outdoor recreation and tourism opportunities. Opportunities should be identified and provided in a planned manner within the context of a balanced system of scenic travel corridors, activity nodes and service centres and should be comprised of a mix of both public and private recreation facilities.

5.3 ASSOCIATED USES

A wide range of uses and management activities can and should be compatibly associated with Recreation Priority Areas, particularly timber harvesting and related management associated with moderate forest resource values. However, outdoor recreation and tourism uses should have preference and management practices associated with alternative use must recognize the dominance of outdoor recreation. Table 8 summarizes a

range of potential land uses according to the degree to which they can be compatibly associated with Recreation Priority Areas. These are outlined below.

5.3.1 Preferred Uses

a. Facilities for viewing wildlife or scenery, highway rest areas and related public facilities

b. Day-use recreation facilities, particularly those which afford public access to river and lake frontages

c. Public corridor or trail systems and related staging areas for both summer and winter and mechanized and non-mechanized forms of travel including snow-mobiling, cross-country skiing, hiking, horseback riding, and river rafting

d. Developed and primitive or rustic public camping sites and developed commercial camping facilities available to the general public

e. Sport hunting and fishing and other dispersed outdoor recreation activities.

5.3.2 Secondary Uses

a. Wildlife and fisheries management

b. Domestic grazing.

5.3.3 Conditional Uses

a. Commercial Recreation Facilities

(1) Commercial recreation facilities including lodges, ressorts, attractions, and river rafting facilities will be considered throughout Recreation Priority Areas.

(2) Approval of commercial recreation facilities is to be subject to an evaluation which should address, among other things:

- impacts on general public access to significant resource attractions
- impacts on recreation values
- impacts on resource values of adjacent priority areas
- recreational travel impacts and conflicts with resource roads
- servicing implications
- impacts on lake storage potential.

b. Water Management including Lake Storage and Stream Regulation

Water management activities related to lake storage and stream regulation are to be undertaken by the responsible authority in conjunction with the Ministry of Lands, Parks and Housing, Parks and Outdoor Recreation Division and the Ministry of Forests, Forest Recreation Branch, to ensure significant recreational resources and public access to stream and lake recreation opportunities are not unduly impaired.

c. Timber Management

(1) Pending the preparation of more detailed plans pursuant to Section 5.4 of this Plan, timber management including timber harvesting and road development is permitted throughout Recreation Priority Areas subject to consultation with the Ministry of Lands, Parks and Housing, Parks and Outdoor Recreation Division. Such consultation should occur during the unit, sub-unit, or operational planning stages as appropriate, and should ensure that scenic landscapes and significant recreational resources are not unduly impaired.

(2) Forested lands within Recreation Priority Areas should remain outside the Provincial Forest pending the finalization of more detailed plans as specified in Section 5.4 of this Plan.

d. Transportation and Utility Corridors

The planning of new transportation and utility corridors or consideration of significant modifications to existing corridors by the Ministry of Transportation and Highways should be pursued jointly with the Ministry of

Lands, Parks and Housing, Parks and Outdoor Recreation Division and the Ministry of Tourism to ensure minimal impacts on significant recreational resource values and visual landscapes.

e. Recreational Cottage Development

(1) Recreation Priority Areas are to be the focus of recreational cottage development within the Plan Area.

(2) Recreational cottage development sites are to be planned and developed prior to disposition consistent with further planning guidelines outlined in Section 5.4.1.

(3) Lake and stream shorelands should not be considered for recreational cottage development where prime outdoor recreation resources occur immediately adjacent to lakes and streams.

f. Mineral Exploration

Mineral exploration is permitted throughout Recreation Priority Areas subject to established review processes and consistency with Recreation Priority Area policies.

5.4 FURTHER PLANNING GUIDELINES

5.4.1 Outdoor Recreation and Tourism Planning

a. Detailed outdoor recreation and tourism plans are to be prepared for Recreation Priority Areas on a staged basis in the following order:

- Bralorne-Gold Bridge
- Duffey Lake corridor
- Seton-Anderson corridor
- Bonaparte Plateau lake area
- Fraser River-Pavilion corridor.

b. The intent of further planning within Recreation Priority Areas is to refine, integrate and implement, in a co-ordinated manner, the program objectives of the Ministry of Lands, Parks and Housing, the Ministry of Forests and the Ministry of Tourism relative to outdoor recreation and to ensure the provision of a balanced system of public and private facilities to serve local, regional and provincial outdoor recreation and tourism needs.

c. Recreation Priority Area planning should address, among other things:

(1) opportunities for implementing recommendations pursuant to recent Travel Industry Development Subsidiary Agreement (T.I.D.S.A.) investigations

(2) identification of significant recreation resources which warrant park status

(3) specific opportunities for private recreation development that will complement public facilities including lodges, resorts, and campgrounds

(4) opportunities for recreational cottages and cabins

(5) opportunities for both preserving and providing greater public access to significant heritage resources

(6) development of guidelines to ensure that outdoor recreation and tourism developments by the public and private sectors to not exceed the carrying capacity of recreation lands

(7) identification of significant visual landscapes which warrant the application of recognized forest landscape management practices as identified in the *Forest Landscape Handbook*[1] to ensure that visual amenities are not unduly impaired by forest harvesting. Included are landscapes within adjacent Timber-Range Priority Areas deemed significant from the perspective of Recreation Priority Areas

(8) identification of lands which should remain under Recreation Priority classification but on which forest management may occur and prescription of forest management practices to minimize the impact on significant recreation values

1. B.C. Ministry of Forests, 1981, *Forest Landscape Handbook*.

(9) identification and assignment to alternative resource use those lands and resources currently within Recreation Priority Areas which, after more detailed investigation and planning as outlined in the foregoing, are deemed most suitable for alternative use.

d. The Ministry of Lands, Parks and Housing, Parks and Outdoor Recreation Division should assume the lead role for outdoor recreation and tourism planning in conjunction with the Ministry of Forests, Forest Recreation Branch, the Ministry of Industry and Small Business Development, the Ministry of Tourism, and the Ministry of Environment, Fish and Wildlife Branch and Water Management Branch. Consultation with the Ministry of Municipal Affairs should be undertaken where major resort developments are contemplated.

5.4.2 Recreational Cottage Planning

a. To the extent possible, recreational cottage planning should occur as a component of the more general outdoor recreation and tourism planning for Recreation Priority Areas identified in Section 5.4.1.

b. Recreation cottage planning should commence with an investigation of the potential for accomodating cottage development at the following locations:

(1) Bonaparte Lake
(2) Young Lake
(3) Machete Lake
(4) Eagan Lake
(5) Duffey Lake corridor.

c. Evaluation of potential sites for recreational cottaging should consider:

(1) the ratio of private cottage use to other public recreation use that may be deemed desirable for the given area

(2) the potential for unacceptable social or economic burdens on the public through the provision of various services

(3) the potential for conflict with resource-related industries and the natural environment

(4) conflicts with or impacts on alternative outdoor recreation opportunities

(5) impacts on lake storage to ensure significant storage potential is not unduly impaired.

d. Locations confirmed as having recreational cottage development potential should be subject to a detailed development plan prior to disposition.

e. Planning for recreational cottage development should be initiated by the Ministry of Lands, Parks and Housing, Regional Operations Division, in conjunction with the Ministry of Tourism, the Ministry of Lands, Parks and Housing, Parks and Outdoor Recreation Division, the Ministry of Forests, Forest Recreation Branch, the Ministry of Environment, Water Management Branch, and the responsible local authority.

6.0 TIMBER-RANGE PRIORITY AREA

6.1 DESCRIPTION

Lands allocated to Timber-Range Priority are characterized by prime, moderate and low forest (timber) and range resource values. In addition, there are significant occurrences of moderate capability wildlife habitat and moderate values for dispersed outdoor recreation pursuits. This priority area is the largest allocation category and occurs throughout the Plan Area.

6.2 MANAGEMENT INTENT

The management emphasis within the Timber-Range Priority Area is twofold: the management of timber resources on a sustained yield basis to maintain the resident wood processing industry, and the management

of range resources for the enhancement of the cattle industry and the protection and enhancement of wildlife within the sub-region.

6.3 ASSOCIATED USES

Due to the large areal extent of this allocation and the significant simultaneous occurrences of timber, range, outdoor recreation and wildlife resource values throughout, this priority area offers the greatest potential for multiple resource management relative to all others. Table 8 summarizes a range of potential land uses that can be compatibly associated with Timber-Range Priority Areas. These are outlined below.

6.3.1 Preferred Uses

a. Timber management including harvesting and production

b. Forage use and production for both domestic stock and wildlife.

6.3.2 Secondary Uses

a. Intensive and dispersed outdoor recreation

b. Wildlife management

c. Water management including lake storage, stream regulation and community water supply

d. Guiding and trapping.

6.3.3 Conditional Uses

a. Single purpose uses which would preclude multiple resource use. These are to be evaluated relative to:

(1) alternative locations for the proposed use

(2) methods for minimizing impacts on multiple resource use where no suitable alternative location can be identified for the proposed single purpose use or activity.

b. Single purpose uses considered conditional uses include:

(1) commercial recreation such as resorts and lodges

(2) agricultural development for the purpose of expanding existing operations adjacent to Timber-Range Priority Areas

(3) commercial trapping and development of associated facilities

(4) mineral exploration and development.

6.4 MANAGEMENT GUIDELINES

a. Consideration should be given to incorporating Timber-Range Priority Areas within the appropriate Provincial Forest.

b. Ongoing management of Timber-Range Priority Areas and implementation of timber harvesting plans should be undertaken by the Ministry of Forests in conjunction with agencies having management responsibilities over resources within the priority area and in accordance with protocol or other agreements with the Ministry of Lands, Parks and Housing and the Provincial Agricultural Land Commission.

c. Management should be in accordance with the *Ministry of Forests Act*, the *Forest Act*, the *Range Act*, and related regulations, and Ministry of Forests policy and procedure manuals. Appropriate Timber Supply Area and Co-ordinated Resource Management policies and other integrated resource management strategies currently in effect will guide management decisions.

d. Five year harvesting, management and working plans will be referred to agencies having management responsibilities within the priority area for review and comment except where compatible with mutually approved plans.

e. Heritage sites will be reported to the Ministry of the Provincial Secretary and Government Services, Heritage Conservation Branch so that the merits of undertaking a site survey can be evaluated and a survey undertaken as appropriate.

6.5 FURTHER PLANNING GUIDELINES

a. Planning at the unit, sub-unit and operational levels will be carried out where deemed necessary by the Ministry of Forests in conjunction with government agencies having management responsibilities within the various planning areas, and as set out in protocol or other agreements with the Ministry of Lands, Parks and Housing.

b. Timber harvest plans will identify requirements for the application of recognized forest landscape management practices as appropriate to minimize impacts on significant visual amenities. Preference will be given to but not be limited to the application of forest landscape management practices to those visual landscapes warranting protection identified in further planning initiatives pursuant to Section 5.4.1., Recreation Priority Area.

7.0 WILDLIFE PRIORITY AREA

7.1 DESCRIPTION

Wildlife Priority Areas are characterized by moderate and prime ungulate and waterfowl resource values. These areas represent important habitat for ungulate species which include mountain goat, big horn sheep, elk, moose and mule deer and waterfowl species such as ducks, geese and swans. In addition, such lands may support significant populations of predators, furbearers and upland gamebirds. It is these resource values which sustain both significant sport hunting and non-hunting recreational activity and represent a key component of the outdoor recreation and tourism opportunities within the Plan Area

7.2 MANAGEMENT INTENT

Management emphasis within Wildlife Priority Areas is the maintenance and enhancement of habitat to support viable populations of the wildlife species representative of the major biophysical zones within the Plan Area. As well, management is to be directed toward ensuring within the constraints of land capabilities, that wildlife is available in sufficient abundance to meet recreational environmental and economic needs.

7.3 ASSOCIATED USES

A wide range of uses and management practices can and should be compatibly associated with Wildlife Priority Areas, particularly timber management, domestic grazing and dispersed outdoor recreation. The preservation and enhancement of wildlife populations and habitat should, however, take precedence. Table 8 summarizes the range of potential land uses which can be compatibly associated with Wildlife Priority Areas. These are outlined below.

7.3.1 Preferred Uses

a. Wildlife management activities for population maintenance and/or enhancement

b. Uses promoting or conducive to wildlife appreciation including wildlife photography, viewing and recreational trail use

c. Sport hunting and fishing.

7.3.2 Secondary Uses

a. Trapping

b. Timber management including harvesting, timber road development and timber production

c. Domestic grazing

d. Water management including lake storage and stream regulation.

7.3.3 Conditional Uses

a. Field Crops

Field crop production, hay cutting and other extensive agricultural uses should ensure that there is a net benefit to wildlife as defined by applicable Ministry of Environment species management objectives.

b. Transportation and Utility Corridors

The planning of new transportation or utility corridors or consideration of significant modification to existing corridors, including forestry roads, should be undertaken in consultation with the Ministry of Environment, Fish and Wildlife Branch to ensure that:

(1) significant wildlife habitat is not unnecessarily impaired

(2) increases in hunting and fishing pressures arising from increased road access are minimized.

c. Mineral Exploration

Mineral exploration is permitted throughout Wildlife Priority Areas subject to established review processes and consistency with Wildlife Priority Area policies.

7.4 MANAGEMENT GUIDELINES

a. The maintenance and enhancement of habitats supporting a variety of wildlife should take precedence.

b. The Ministry of Environment, Fish and Wildlife Branch in consultation with the Ministry of Forests, will consider the impact of wildlife and wildlife management on resources of adjoining priority areas when establishing wildlife population objectives for Wildlife Priority Areas.

c. Guidelines for fire management of vegetation within Wildlife Priority Areas should be jointly established by the Ministry of Forests and the Ministry of Environment, Fish and Wildlife Branch.

d. The need to preserve rare or scarce species should take precedence over domestic grazing and wildlife harvesting.

e. Consideration should be given to including Wildlife Priority Areas within the appropriate Provincial Forest.

f. Planning for timber harvesting, domestic grazing or dispersed outdoor recreation use within Wildlife Priority Areas should involve the Ministry of Environment, Fish and Wildlife Branch.

7.5 FURTHER PLANNING GUIDELINES

The Ministry of Environment, Fish and Wildlife Branch, should articulate objectives for each Wildlife Priority Area. The objectives should reflect goals and objectives outlined in the provincial fisheries and wildlife management plans, species management plans and regional management plans of the Ministry of Environment.

8.0 RESOURCE OPTION AREA

8.1 DESCRIPTION

Resource Option Areas display multiple resource capabilities for use or management which are incompatible where they occur together. Such lands are broadly distributed in two main areas. One occurs west of the Fraser River and is characterized by prime range and prime ungulate resource values. The second occurs on the Bonaparte Plateau. It is dominated by overlapping agriculture and forest resource values, but displays as well, simultaneous occurrences of agriculture and recreation, range and ungulate, and recreation and range resource values.

8.2 MANAGEMENT INTENT

Due to the occurrence of forest and range resource capabilities throughout Resource Option Areas, and the current lack of significant demand for uses other than forest, range, or wildlife resource uses, consideration should be given to management of Resource Option Areas for timber and range purposes. However, unlike Timber-Range Priority Areas, because of the existence of extensive areas of moderate and prime resource capabilities for non-forest and non-range use, the incompatibility of such resource uses with forest and range resources, and the need to maintain future resource use options, timber and range management within Resource Option Areas should be considered an interim measure.

8.3 MANAGEMENT GUIDELINES

8.3.1. Consideration should be given to incorporating Resource Option Areas within the appropriate Provincial Forest.

8.3.2. The Ministry of Lands, Parks and Housing will undertake evaluations and/or planning as appropriate within five years, but not later than the date of the Plan review, to determine the suitability of lands within Resource Option Areas for non-forest and non-range use.

8.3.3. Pursuant to investigations identified in 8.3.2., the Ministry of Lands, Parks and Housing, Regional Operations Division, may initiate action for the removal of land from the Provincial Forest.

8.3.4. Unlike Timber-Range Priority Areas, within which the emphasis is clearly timber and range management on a sustained yield basis, the design of timber and range management practices for Resource Option Areas should recognize that lands may be removed from the Provincial Forest for non-forest or non-range use.

8.3.5. Timber and range management strategies for Resource Option Areas should recognize and make provision for significant wildlife resource values.

9.0 SETTLEMENT

9.1 DESCRIPTION

Areas identified as Settlement on the Plan Map are areas of Crown land on which permanent non-agricultural settlement should be focussed. These are:

a. Primary Settlement Areas which incorporate lands within a 2 to 3 kilometre radius of the communities of Clinton and Lillooet; and,

b. Secondary Settlement Areas which incorporate lands within a .5 to 1 kilometre radius of the communities of 70 Mile House, Seton Portage, Gold Bridge and Bralorne.

9.2 MANAGEMENT INTENT

The management emphasis within Settlement Areas is to concentrate residential, commercial, and industrial settlement and ancillary uses within specific areas of Crown land adjacent to existing communities and thereby minimize conflict with resource uses and management activities elsewhere in the Plan Area. As well, limited opportunity for rural residential settlement on Crown land adjacent to established rural residential concentrations is provided for.

9.3 MANAGEMENT GUIDELINES

9.3.1 General

a. Residential settlement on Crown land within the Plan Area is to be located within identified settlement Areas.

b. Priority resource values located within Primary and Secondary Settlement Areas identified by more detailed planning as not being required for settlement purposes are to be evaluated for suitability for long-term resource management purposes and are to be so designated.

c. Pending the preparation of detailed plans, resource management activities including timber and wildlife management are permitted within Primary and Secondary Settlement Areas consistent with the priority area policies of this Plan and subject to the recognition that lands may be alienated and developed for settlement purposes.

d. Forested lands within Primary and Secondary Settlement Areas should remain outside the Provincial Forest pending the finalization of more detailed settlement plans.

9.3.2 Primary Settlement Areas

a. The communities of Clinton and Lillooet are to be recognized as the settlement centres of the sub-region. Primary Settlement Areas located adjacent to these communities are to be the focus of settlement on Crown land within the Plan Area.

b. Commercial and industrial use of Crown land within the Plan Area should be directed to identified Primary Settlement Areas.

c. Crown land within Primary Settlement Areas should be developed and serviced prior to disposition for industrial, institutional, commercial or residential use consistent with an official community plan for areas within corporate boundaries and an official settlement plan for unincorporated areas.

d. Detailed settlement and community plans should make efficient use of available Crown land, provide opportunities for accomodating a range of residential densities and provide institutional commercial and industrial development opportunities.

e. Within primary settlement areas:

(1) preference should be given to the utilization of Crown land within corporate boundaries of Clinton and Lillooet to accomodate proposed residential, commercial or industrial use of Crown land where appropriate land is available

(2) where appropriate Crown land is not available within corporate boundaries of Clinton and Lillooet for proposed residential, commercial or industrial use of Crown land, Crown lands located adjacent to corporate boundaries should be given preference.

f. Applications for use other than industrial, institutional, commercial or residential use should be subject to the approval of the responsible local authority and normal agency referrals.

9.3.3 Secondary Settlement Areas

a. Secondary Settlement Areas are to be the focus of settlement expansion adjacent to secondary communities within the Plan Area.

b. Detailed settlement planning should make efficient use of the available Crown land for a range of settlement purposes.

c. Crown land should be developed and serviced prior to disposition for institutional, commercial and residential use consistent with the official settlement plan for the Secondary Settlement Area.

d. Applications for use other than institutional, commercial or residential use should be subject to the approval of the responsible local authority and normal agency referrals.

9.3.4 Rural Settlement

a. Consideration is to be given to the provision of limited opportunity for rural residential settlement at the following locations:

(1) Clinton Creek Valley, between the communities of Clinton and Kelly Lake

(2) Loon Creek Valley, between Loon Lake and the junction of the Bonaparte River and Loon Creek

(3) Gun Lake between Gun and Downton Lakes

(4) Chasm

(5) Jesmond.

b. Rural residential settlement within the Plan Area should be restricted to the locations identified in 9.3.4a.

c. Boundaries of specific areas to be considered for rural settlement at locations identified in 9.3.4a. are to be determined by the Ministry of Lands, Parks and Housing, Regional Operations Division in conjunction with the Ministry of Forests and the responsible regional district.

d. Rural settlement is to be oriented to the infilling of Crown land within and immediately adjacent to established rural settlement concentrations at the identified locations and is to be limited to rural residential development on large parcel size.

e. The design, servicing level and minimum parcel size of rural residential subdivisions should reflect the role of such areas for the purpose of rural settlement and not be considered an evolutionary step toward an urban environment.

f. Consideration is to be given to the economic provision of only minimum public services.

g. Crown land within areas identified for rural settlement purposes should not be considered for long-term resource management prior to more detailed planning.

9.4 FURTHER PLANNING GUIDELINES

a. The Ministry of Lands, Parks and Housing encourages the responsible local authority to prepare detailed community and settlement plans for Crown land within Primary and Secondary Settlement Areas.

b. In the event that significant demand occurs for the use of Crown land for settlement purposes within a specific Primary or Secondary Settlement Area, and settlement planning has not been commenced by the responsible local authority, the The Ministry of Lands, Parks and Housing, Regional Operations Division, may commence appropriate planning initiatives.

c. Due to significant resource values on Crown lands within the Primary and Secondary Settlement Areas as identified on the Plan Map, detailed settlement plans for Primary and Secondary Areas should be prepared by the responsible local authority in partnership with the the Ministry of Lands, Parks and Housing, Regional Operations Division, the Ministry of Municipal Affairs, and those agencies having jurisdiction over the priority resource values.

d. The Ministry of Lands, Parks and Housing will initiate planning for rural settlement purposes at identified locations in conjunction with the responsible local authority and the Ministry of Environment, Water Management Branch.

10.0 MINING

10.1 DESCRIPTION AND MANAGEMENT INTENT

While the Plan Area displays high to moderate mineral potential, it is not possible due to the nature of mineral resources to identify mineral priority areas which reflect this potential. It is recognized, however, that a resurgence in mining activity may occur on lands located throughout the Plan Area. Such activity will have impacts on all priority resources identified in the Plan. The management intent is to ensure that negative impacts are minimized.

10.2 MANAGEMENT GUIDELINES

a. Mine development guideline review processes should recognize the resource allocations and policies of this Plan and be consistent with them to the maximum extent.

b. Settlement resulting from mine development should be directed where possible to the Primary and Secondary Settlement Areas identified in this Plan.

c. Where the mine development guideline review process indicates that Primary and Secondary Settlement Areas are not adequate to accommodate new settlement resulting from mine development within the Plan Area, alternative locations should only be designated subsequent to review by appropriate agencies and local government.

11.0 HERITAGE RESOURCES

11.1 DESCRIPTION

The Plan Area is rich in archaeological sites and contains numerous historically significant trails and structures. Not only do these resources constitute reference points to the sub-regional history, but they also constitute a significant component of outdoor recreation and tourist activity within the Plan Area.

11.2 MANAGEMENT INTENT

The management emphasis is twofold: the preservation of significant heritage resources, and the enhancement of educational and interpretive opportunities. Due to the small size and specific nature of most heritage resources, it is not appropriate to designate heritage resource priority areas. Rather they are considered as a specialized component of identified resource priority areas.

11.3 MANAGEMENT GUIDELINES

a. Major development projects such as mines, transmission line and road corridors and water impoundment projects should be preceded by a heritage inventory and, if warranted, a heritage impact assessment.

b. Crown land dispositions for occupational or agricultural uses should be preceded by a heritage inventory and, if warranted, a heritage impact assessment.

c. Route selection or dispositions pursuant to the two preceding guidelines should await the results of heritage investigations deemed necessary.

d. Resource and land management agencies should notify the Heritage Conservation Branch of the Ministry of the Provincial Secretary and Government Services where, in the course of their management work, archaeological, historical or paleontological sites are encountered.

11.4 FURTHER PLANNING GUIDELINES

a. Formal inventories and/or impact assessments should be undertaken by proponents of development projects listed in 11.3a.

b. The cooperation of the Heritage Conservation Branch should be solicited by the Ministry of Lands, Parks and Housing, Regional Operations Division, prior to land disposition.

c. Opportunities for enhancing public access to heritage resources and for providing comprehensive interpretive opportunities within Recreation Priority Areas should be pursued as a component of outdoor recreation and tourism planning identified in Section 5.4.1. of this Plan.

APPENDICES

APPENDIX I

NUMBER KEY: COMPOSITE RESOURCE CAPABILITY MAP

1 AgP
1^{A} AgP/UngP
2 AgM
2^{A} AgM/UngP
2^{C} AgP/UngM$_1$
2^{X} AgM/UngP/RanP
3 AgL
3^{A} AgL/UngP
4 AgP/RecP
4^{A} AgP/RecP/UngP
5 AgP/RecM
5^{A} AgP/RecM/UngP
5^{C} AgP/RecM/UngP/RanP
5^{X} AgP/RecM/RanM
6 AgP/RecL
6^{A} AgP/RecL/UngP
6^{C} AgP/RecL/UngP/RanP
7 AgM/RecP
8 AgM/RecM
9 AgM/RecL
10 AgL/RecP
11 AgL/RecM
11^{A} AgL/RecM/UngP
11^{C} AgL/RecM/RanL/UngM$_1$
11^{X} AgL/RecM/UngP/RanP
12 AgL/RecL
12^{A} AgL/RecL/UngP
13 RecP
13^{A} RecP/UngM$_1$
13^{C} RecP/UngM$_1$/RanM
13^{X} RecP/RanP
14 RecM
14^{A} RecM/UngP
14^{C} RecM/UngP/RanP
15 RecL
15^{A} RecP/UngP
16 AgL/RecM/ForP
17 AgL/ForL
18 ForL
19 AgL/ForM
20 AgL/ForP
20^{A} AgL/ForP/UngP
21 AgL/RecL/ForM
22 AgL/RecM/ForM
23 AgL/RecP/ForM
24 AgM/RecP/ForM
25 AgM/RecM/ForM
26 ForP
26^{A} ForP/Ung M$_1$
26^{C} ForP/Ung M$_1$/RanM
27 AgM/ForM
28 AgM/ForL
29 RecL/ForM
30 RecL/ForL
30^{A} RecL/ForL/RanP

31 ForM
32 AgM/ForP
33 AgM/RecL/ForP
34 AgM/RecL/ForM
35 AgL/RecL/ForL
35^{A} RecM/ForL/UngP
35^{C} RecM/ForL/UngP/RanP
36 RecM/ForL
*36^{A} RecM/ForL/UngM$_1$
37 RecP/ForM
37^{A} RecP/ForM/UngM$_1$
37^{C} RecP/ForM/UngM$_1$/RanM
37^{X} RecP/ForM/RanP
38 RecP/ForL
38^{A} RecP/ForL/UngP
38^{C} RecP/ForL/RanM
38^{X} RecP/ForL/RanP
39 RecP/ForP
39^{A} RecP/ForP/UngM$_1$
40 AgL/RecL/ForP
41 RecM/ForM
41^{A} RecM/ForM/UngP
42 AgM/RecL/ForL
43 AgP/ForM
44 AgL/RecM/ForL
45 RecM/ForP
45^{A} RecM/ForP/UngM$_1$
46 AgP/ForL
47 AgP/RecL/ForM
48 AgL/RecP/ForP
49 AgP/RecM/ForM
50 AgP/ForP
51 RecL/ForP
52 AgM/RecM/ForL
52^{A} AgM/RecM/ForL/UngP
53 AgM/RecP/ForL
54 AgL/RecP/ForL
55 AgP/RecL/ForL
56 AgP/RecM/ForL
57 AgP/RecP/ForL
58 RecP/ForM/UngM$_1$
58^{A} RecP/ForM/UngM$_1$
59 RecP/ForL/UngM$_1$
60 ForL/UngM$_1$
61 ForM/UngM$_1$
62 AgL/RecL/ForM/UngM$_1$
63 AgL/RecL/ForL/UngM$_1$
64 AgL/ForP/UngM$_1$
65 AgM/RecL/UngM$_1$
66 AgL/ForM/UngM$_1$
67 RecL/UngP
67^{A} RecM/UngP
68 ForL/UngP
69 ForM/UngP
70 RecL/ForM/UngM$_1$

*36^{A} = 157

71 AgM/RecL/ForM/UngM$_1$
72 AgM/ForM/UngP
73 AgM/ForM/UngM$_1$
74 AgM/ForP/UngP
75 RecL/ForM/UngP
76 AgM/RecM/ForM/UngM$_1$
77 AgM/RecM/ForM/UngP
78 AgM/RecP/ForM/UngP
79 AgM/RecP/ForM/UngM$_1$
80 AgL/ForM/UngP
81 AgL/ForL/UngP
82 AgL/ForL/UngM$_1$
83 Ung M$_1$
84 AgM/ForL/UngM$_1$
85 AgM/RecP/ForM/UngM$_1$
86 AgL/RecM/ForM/UngM$_1$
87 AgL/RecM/ForM/UngP
88 AgL/RecP/ForM/UngM$_1$
89 AgL/RecL/ForM/UngP
90 AgL/RecM/ForP/UngM$_1$
91 AgL/RecM/UngM$_1$
92 RecL/ForL/UngP
93 AgL/ForM/UngM$_1$
94 AgL/ForL/UngM$_1$
95 ForL/UngM$_1$
96 ForM/UngM$_1$
97 RecM/ForM/UngM$_1$
98 AgM/RecL/ForL/UngM$_1$
99 AgM/RecL/ForM/UngP
100 AgL/RecM/ForM/UngM$_1$
101 AgL/RecP/ForM/UngM$_1$
102 AgP/ForM/UngM$_1$
103 AgP/ForM/UngM$_1$
104 AgL/ForP/UngM$_1$
105 AgM/ForM/UngM$_1$
106 AgM/RecM/ForM/UngM$_1$
107 AgP/RecM/ForM/UngM$_1$
108 AgP/ForL/UngM$_1$
109 AgL/RecL/ForM/UngM$_1$
110 AgM/RecL/ForP/UngM$_1$
111 AgP/RecL/ForM/UngM$_1$
112 AgL/RecP/ForP/UngM
113 AgM/UngM
114 AgM/ForP/UngM$_1$
115 RecL/ForM/UngM$_1$
116 AgM/RecL/ForM/UngM$_1$
117 AgL/UngM$_1$
118 AgL/UngM$_1$
119 ForP/UngM$_1$
120 AgP/ForP/UngM$_1$
121 RecM/ForM/UngM$_1$
122 RecL/ForP/UngM$_1$
122^{A} RecL/ForP/UngM$_1$/RanM
123 AgM/RecM/UngM$_1$
124 AgM/UngM$_1$

125 RecL/ForL/UngM$_1$
126 RecL/ForL/UngM$_1$
127 AgM/RecL/ForL/UngM$_1$
128 AgM/ForL/UngM$_1$
129 AgL/RecL/ForL/UngM$_1$
130 RecL/UngM$_1$
131 RecL/UngM$_1$
132 UngP
*132^{A} UngP/RanP
133 UngM$_1$
134 AgP/RecL/UngM$_1$
135 AgP/RecL/UngM$_1$
136 RecL/ForP/UngM$_1$
137 RecM/ForL/UngM$_1$
138 AgL/RecP/UngM$_1$
139 AgL/RecL/UngM$_1$
139^{A} AgL/RecL/UngM$_1$/RanL
140 AgL/RecL/UngM$_1$
141 ForL/UngM$_1$
142 AgM/RecL/UngP
143 AgM/RecL/UngM$_1$
144 RecM/UngM$_1$
145 RecM/UngM$_1$
146 AgM/RecM/UngP
147 AgM/RecM/UngM$_1$
148 RecP/ForM/UngP
149 RecP/ForL/UngM$_1$
149^{A} RecP/ForL/UngM$_1$/RanP
150 AgP/ForL/UngM$_1$
151 AgL/RecP/ForL/UngM$_1$
152 AgM/RecP/ForL/UngM$_1$
153 AgP/RecL/ForL/UngM$_1$
154 AgM/RecM/ForL/UngM$_1$
155 AgP/RecM/UngM$_1$
156 AgP/RecM/UngM$_1$
*157 RecM/ForL/UngM$_1$
158 AgP/RecM/ForL/UngM$_1$
159 AgP/RecL/UngM$_1$
160 RecP/UngM$_1$
161 AgL/RecM/UngM$_1$
162 AgL/RecP/UngM$_1$
163 AgP/RecP/UngM$_1$
164 RanP/AgL/RecM/ForM/UngP
165 RanP/AgM/AgM/RecP/ForM/UngM
166 RanP/AgL/RecL/ForM/UngP
167 RanP/AgL/ForM/UngP
168 RanP/AgL/ForL/UngM$_1$
169 RanM/AgL/ForL/UngM$_1$
170 RanP/ForL/UngM$_1$
*171 RanM/ForL/UngM$_1$
172 RanP/AgL/ForM/UngM$_1$
173 RanP/AgM/RecM/ForM/UngM$_1$
174 RanP/AgM/ForM/UngM$_1$
175 RanP/AgL/RecM/ForP/UngM$_1$
176 RanP/AgL/RecM/UngM$_1$

*132^{A} = 519
*157 = 36^{A}

No.	Code
177	RanP/UngM$_1$
178	RanP/AgM/ForL/UngM$_2$
179	RanP/RecL/ForM/UngM$_2$
180	RanP/RecL/ForM/UngP
181	RanP/RecL/ForL/UngP
182	RanP/AgM/ForM/UngP
183	RanM/AgM/ForM/UngP
184	RanP/ForM/UngM$_2$
185	RanM/ForM/UngM$_2$
*186	RanM/ForL/UngM$_1$
187	RanM/AgL/ForC/UngM$_1$
188	RanP/AgL/ForL/UngM$_1$
189	RanM/AgL/ForM/UngM$_1$
190	RanP/AgL/ForM/UngM$_1$
191	RanL/AgL/ForM/UngM$_1$
192	RanM/AgM/RecP/ForM/UngM$_2$
193	RanP/AgM/RecP/ForM/UngP
194	RanM/ForL/UngM$_1$
195	RanM/ForM/UngM$_1$
196	RanP/ForM/UngM$_1$
197	RanM/ForL/UngP
198	RanP/AgM/RecM/ForM/UngP
199	RanP/ForL/UngP
200	RanM/AgL/ForL/UngP
201	RanM/AgM/RecL/UngM$_2$
202	RanM/ForM/UngP
203	RanP/ForM/UngP
204	RanM/AgL/ForM/UngM$_2$
205	RanM/RecL/UngP
206	RanM/AgL/ForM/UngM$_1$
207	RanP/AgL/RecL/ForM/UngM$_1$
209	RanM/AgL/ForP/UngM$_1$
210	RanP/AgL/RecL/ForL/UngM$_1$
211	RanP/AgM/RecL/UngM
212	RanM/AgL/ForM
213	RanP/AgL/ForM
214	RanM/ForM
215	RanP/ForM
216	RanM/AgL/ForP
217	RanM/ForL
218	RanL/ForL
219	RanP/ForL
220	RanP
221	RanM
222	RanL
223	RanM/AgL/RecL/ForM
224	RanP/AgL/RecL/ForM
225	RanL/ForM
226	RanM/ForP
227	RanM/AgM/ForM
228	RanM/AgL/RecM/ForM
229	RanM/RecL/ForM
230	RanM/RecP/ForM/UngM$_2$
231	RanM/RecP/ForL/UngM$_1$
232	RanM/AgL/RecP/ForM

*186 = 171

No.	Code
233	RanM/AgL/ForL
*234	RanP/AgL/ForL
235	RanP/AgM/ForM
*236	RanM/AgM/ForL
*237	RanP/AgM/ForL
238	RanM/AgM/RecL/ForM/UngM$_1$
239	RanM/RecL/ForM/UngP
240	RanM/AgM/ForM/UngM$_1$
241	RanM/AgM/RecL/ForM/UngP
242	RanP/AgM/RecL/ForM/UngP
243	RanM/RecL/ForM/UngM$_1$
244	RanP/RecL/ForM/UngM$_1$
245	RanM/AgL/RecM/ForM/UngM$_1$
246	RanM/AgL/RecP/ForM/UngM$_1$
247	RanM/AgP/ForM/UngM$_1$
248	RanP/AgP/ForM/UngM$_1$
249	RanM/AgP/ForM/UngM$_1$
250	RanP/AgP/ForM/UngM$_1$
251	RanM/AgL/ForP/UngM$_1$
252	RanM/AgM/ForM/UngM$_1$
253	RanP/AgM/ForM/UngM$_1$
254	RanM/AgM/RecM/ForM/UngM$_1$
255	RanP/AgM/RecM/ForM/UngM$_1$
256	RanM/AgP/ForL/UngM$_1$
257	RanM/AgL/RecL/ForM/UngM$_1$
258	RanP/AgL/RecL/ForM/UngM$_1$
259	RanM/RecM/ForP
260	RanM/AgL/RecM/ForL
261	RanM/AgP/ForM
262	RanM/AgP/RecM/ForM/UngM$_1$
263	RanM/RecM/ForM/UngM$_1$
264	RanM/AgL/RecM/ForM/UngM$_1$
265	RanM/AgP/ForL/UngM$_1$
266	RanM/AgL/RecP/ForP/UngM$_1$
267	RanM/AgP/RecL/ForM/UngM$_1$
268	RanP/AgP/RecL/ForM/UngM$_1$
269	RanM/AgM/RecL/ForP/UngM$_1$
270	RanP/AgM/RecL/ForM/UngM$_1$
271	RanM/AgM/RecL/ForM/UngM$_1$
272	RanM/AgL/UngM$_1$
273	RanP/AgL/UngM$_1$
274	RanM/ForP/UngM$_1$
275	RanP/AgP/ForP/UngM$_1$
276	RanM/AgP/ForP/UngM$_1$
277	RanM/AgM/ForP/UngM$_1$
278	RanM/RecL/ForM/UngM$_1$
279	RanP/RecL/ForM/UngM$_1$
280	RanM/AgM/UngM$_1$
281	RanP/AgM/UngM$_1$
282	RanP/RecM/ForM/UngM$_1$
283	RanM/RecM/ForM/UngM$_1$
284	RanM/AgL/RecP/ForM/UngM$_1$
285	RanM/AgM/RecP/ForM/UngM$_1$
286	RanP/RecL/ForP/UngM$_1$
287	RanM/AgM/ForL/UngM$_1$

*234 = 382
*236 = 317
*237 = 316

No.	Code
288	RanP/RecL/ForL/UngM$_1$
289	RanM/RecL/ForL/UngM$_1$
290	RanP/RecL/ForL/UngM$_1$
291	RanM.AgM/UngM$_1$
292	RanM/AgL/RecL/ForL/UngM$_1$
293	RanM/AgM/RecL/ForL/UngM$_1$
294	RanP/AgM/ForL/UngM$_1$
295	RanP/AgL/RecL/ForL/UngM$_1$
296	RanP/AgM/RecL/ForL/UngM$_1$
297	RanM/RecL/ForL/UngM$_1$
298	RanM/AgM/RecM/UngM$_1$
299	RanM/RecL/UngM$_1$
300	RanP/RecL/UngM$_1$
301	RanM/RecL/UngM$_1$
302	RanP/RecL/UngM$_1$
303	RanP/AgP/RecL/UngM$_1$
304	RanM/AgP/RecL/UngM$_1$
305	RanP/UngM$_1$
306	RanM/UngP
307	RanP/ForL/UngM$_1$
308	RanM/ForL/UngM$_1$
309	RanM/AgL/RecL/ForL
310	RanM/RecM/ForL
311	RanP/AgL/RecL/ForL
312	RanP/AgM/RecL/ForM
313	RanM/AgP/ForL
314	RanP/AgP/ForL
315	RanM/AgP/RecL/ForM
*316	RanP/AgM/ForL
*317	RanM/AgM/ForL
318	RanM/AgP/ForP
319	RanP/AgM/ForP
320	RanM/AgP
321	RanM/AgM
322	RanL/AgM
323	RanP/AgM
324	RanP/AgL
325	RanM/AgL
326	RanP/AgP
327	RanM/AgM/ForP
328	RanM/RecM/ForM
329	RanM/UngM$_1$
330	RanM/AgL/RecL
331	RanP/AgL/RecL
333	RanM/RecM/ForL/UngM$_1$
334	RanP/AgM/RecL/ForL/UngM$_1$
335	RanM/AgL/RecP/UngM$_1$
336	RanP/AgL/RecL/UngM$_1$
337	RanM/RecL/ForP/UngM$_1$
338	RanP/AgL/UngM$_1$
339	RanM/RecM/UngM$_1$
340	RanM/AgM/RecL/UngP
341	RanM/AgM/RecM/UngP
341[A]	AgM/RecM/UngP/RanP
342	RanM/RecP/ForM/UngP

*316 = 237
*317 = 236

No.	Code
343	RanM/RecP/ForL/UngM$_1$
*344	RanM/AgL/RecL/UngM$_1$
345	RanP/AgL/RecP/ForL/UngM$_1$
346	RanM/AgL/RecP/ForL/UngM$_1$
347	RanM/AgM/RecP/ForL/UngM$_1$
348	RanP/AgP/ForL/UngM$_1$
349	RanM/AgP/ForL/UngM$_1$
350	RanP/AgP/RecL/ForL/UngM$_1$
351	RanM/AgP/RecL/ForL/UngM$_1$
352	RanM/AgP/RecM/UngM$_1$
353	RanP/AgP/RecM/UngM$_1$
354	RanM/AgM/RecL/UngM$_1$
355	RanP/AgM/RecM/ForL/UngM$_1$
356	RanP/AgM/RecM/UngM$_1$
357	RanM/AgM/RecM/UngM$_1$
358	RanM/AgM/RecM/ForL/UngM$_1$
359	RanP/AgM/RecL/ForL
361	RanP/RecM/UngM$_1$
362	RanP/AgP/RecM/ForL/UngM$_1$
363	RanP/AgP/RecL/UngM$_1$
364	RanP/AgM/RecM/ForL
365	RanM/AgM/RecM/ForL
366	RanP/AgM/RecL
*367	RanP/AgM/RecL/UngM$_1$
368	RanMpAgM/RecL
369	RanM/AgP/RecL/ForL
370	RanL/AgM/Recl
371	RanP/AgL/RecM/ForL
372	RanP/RecM/ForL/UngM$_1$
373	RanP/RecL/ForP/UngM$_1$
*374	RanM/AgL/RecL/UngM$_1$
375	RanL/AgM/ForL
376	RanP/RecL
377	RanP/AgL/RecL/UngM$_1$
378	RanP/AgL/RecM
379	RanP/AgM/RecM
*380	RanP/AgM/RecL/UngM$_1$
381	RanP/AgP/RecL
*382	RanP/AgL/ForL
383	RanP/ForP
384	RanP/RecM/UngM$_1$
385	RanM/AgL/ForL/UngP
386	RanM/RecL
387	RanM/RecL/ForP
388	RanM/RecM/ForL/UngM$_1$
389	RanM/RecL/ForL
390	RanM/AgP/RecL
391	RanL/AgM/ForM
392	RanM/AgL/ForM/UngM$_1$
393	RanM/RecL/ForM/UngM$_1$
394	RanP/AgP/RecL/UngM$_1$
395	RanM/AgL/RecP/UngM$_1$
396	RanM/RecM
397	RanP/AgP/RecM
398	RanM/AgM/RecM

*344 = 374 *374 = 344 *382 = 234
*367 = 380 *380 = 367

SYMBOLS

Ag = Agriculture	For = Forestry	Ung = Ungulates	P = Prime capability	L = Low capability	M_2 = Ungulate; subscript depicts moderate winter range
Rec = Recreation	Ran = Range	Wat = Waterfowl	M = Moderate capability	M_1 = Ungulate; subscript depicts moderate range	

NUMBER KEY: COMPOSITE RESOURCE CAPABILITY MAP (continued)

399 RanP/AgL/UngM_1
400 RanP/AgM/RecP
401 RanL/AgM/RecM/UngM_1
402 RanP/RecL/ForM/UngM_2
403 RanP/RecM/ForL
404 RanP/AgL/RecM
405 RanM/UngM_1
406 WatL/RanP/AgL/ForM/UngM_2
407 WatL/RanP/AgL/RecM/UngM_2
408 WatL/RanP/AgM/ForL/UngM_2
409 WatM/RanP/AgM/RecP/ForM/UngP
410 WatL/RanP/AgM/ForM/UngM_2
411 WatL/RanP/RecL/ForM/UngM_2
412 WatL/RanP/AgL/RecL/ForL/UngM_2
413 WatL/AgM/RecL/ForM/UngM_2
414 WatL/RanP/AgL/RecL/ ForM/UngP
415 WatL/RanP/AgM/RecL/ ForM/UngP
416 WatL/RanM/AgM/RecL/ ForM/UngM_2
417 WatM/RanM/AgL/RecM/ForL
418 WatM/RanM/RecL/ForM/UngM_2
419 WatM/RanM/RecM/ForP
420 WatL/RanM/AgP/RecL/ ForM/UngM
421 WatL/RanM/AgP/ForM/UngM_1
422 WatL/RanM/AgL/ForM/UngM_1
423 WatL/RanM/ForM/UngM_1
424 WatL/RanM/AgL/RecL/ForL
425 WatL/RanM/AgP/RecL/ForM
426 WatL /RanM/AgL/UngM_1
427 WatL/RanM/AgL/RecL/ ForM/UngM_2
428 WatM/RanM/RecM/ForM/UngM_1
429 WatM/RanM/AgP/RecM/ ForM/UngM_1
430 WatM/RanM/AgL/RecM/ ForM/UngM_1
431 WatL/RanM/AgL/RecL/ForM/UngM_1
432 WatL/RanM/AgP/ForL/UngM_1
433 WatL/RanM/AgM/RecM/ ForM/UngM_1
434 WatM/RanM/AgM/RecM/ ForM/UngM_1
435 WatM/RanM/AgL/RecL/ ForM/UngM_1
436 WatM/RanM/RecL/ForM/UngM_1
437 WatM/RanM/AgM/RecL/ ForM/UngM_1
438 WatM/RanP/AgL/ForL/UngM_1
439 WatM/RanM/RecM/ForP
440 WatM/RanM/AgL/RecL/ ForL/UngM_1
441 WatL/RanM/AgM/ForL/UngM_1
442 WatM/RanM/AgP/RecL/ForM/UngM_1
443 WatM/RanP/AgP/RecL/ ForM/UngM_1
444 WatL/RanP/AgP/ForL/UngM_1
445 WatP/RanM/AgL/RecP/UngM_1
446 WatL/RanM/AgL/ForL/UngM_1
447 WatM/RanM/AgL/ForL/UngM_1
448 WatM/RanM/RecM/ForM
449 WatL/RanM/AgL/ForL
450 WatL/RanM/AgP/ForL
451 WatL/RanP/AgL
452 WatL/RanM/AgM/ForM/UngM_1
453 WatL/RanP/AgM/RecL/ ForM/UngM_1
454 WatL/RanM/AgM/RecL/ ForM/UngM_1
455 WatL/RanM/RecL/ForL/UngM_1
456 WatL/RanP/RecL/ForM/UngM_1
457 WatM/RanP/AgM/RecL/ ForL/UngM_2
458 WatL/RanP/RecM/UngM_2
459 WatL/RanP/AgM/RecM
460 WatM/RanP/AgM/RecL/UngM_2
461 WatM/RanP/AgL/RecL
462 WatP/RanP/RecM/UngM_1
463 WatP/RanM/AgP/RecM/UngM_1
464 WatP/RanP/AgP/RecM/UngM_1
465 WatP/RecM/ForL/UngM_1
466 Wat P/RanP/AgM/RecM/ ForL/UngM_1
467 WatM/RanM/AgP/RecL/UngM_1
468 WatP/RanP/AgP/RecM/ ForL/UngM_1
469 WatP/RanP/AgM/ForL
470 WatM/RanM/AgM/RecM
471 WatM/RanP/AgM/RecL/ForL
472 WatM/RanM/RecM
473 WatP/RanM/AgM/RecL/ ForM/UngM_1
474 WatP/RanP/AgP/RecL/ ForM/UngM_1
475 WatM/RanM/AgM/RecL/ ForL/UngM_1
476 WatM/RanM/AgM/RecL/UngM_1
477 WatM/RanM/AgM/RecL/ForL
478 WatM/RanP/AgM/RecM/UngM_1
479 WatM/RanM/AgM/RecM/UngM_1
480 WatM/RanP/AgM/RecM/ ForL/UngM_1
481 WatP/RanM/AgM/RecM/ ForL/UngM_1
482 WatP/RanM/AgL/RecM/ForL
483 WatM/RanP/AgM/RecL/UngM_1
484 WatP/RanP/AgM/RecM/UngM_1
485 WatL/RanP/AgM/RecM/ ForL/UngM_1
486 WatM/RanM/AgM/RecL
487 WatM/RanP/AgM/RecL/ ForL/UngM_1
488 WatM/RanP/AgL/RecL/UngM_1
489 WatM/RanP/AgM/RecL/ForM
490 WatM/RanP/AgL/ForM
491 WatL/RanP/AgM/RecM/ ForL/UngM_1
492 WatM/RanL/Agm/RecM/UngM_1
493 WatL/RanP/AgL/UngM_1
494 WatP/RanM/AgM/REcM/UngM_1
495 WatP/RanP/AgM/RecM
496 WatP/RanM/AgM/RecM/ForL
497 WatP/RanM/AgL/RecM
498 WatL/RanP/AgL/ForL/UngM_1
499 WatL/RanM/AgL/RegL/UngM_1
500 WatL/RanP/RecM/ForL/UngM_1
501 WatP/RecL/ForM/UngM_2
502 WatP
503 WatM/RanM/ForM/UngM_2
504 WatL/RecM
505 WatLAgL/ForP
506 WatP/RecM
507 WatM/UngM_1
508 WatM/RecL/UngP
509 WatM/UngP/RanP
510 WatM/AgP/RecM/UngP
511 WatP/AgL/RecM/UngP
512 WatL/AgL/RecL/UngM_1
513 WatM/AgL/RecL/
514 WatM/RecL/UngM_2
515 WatL/AgL/RecP/ForL/UngM_1
516 WatM/RanM/RecL/ForL/UngM_1
517 WatL/AgP/RecM/ForL/UngM_1
518 RecL/UngP/RanP
*519 UngP/RanP

*519 = 132[A]

SYMBOLS

Ag = Agriculture
Rec = Recreation
For = Forestry
Ran = Range
Ung = Ungulates
Wat = Waterfowl

P = Prime capability
M = Moderate capability
L = Low capability
M_1 = Ungulate; subscript depicts moderate range
M_2 = Ungulate; subscript depicts moderate winter range

APPENDIX II

MINISTRY OF LANDS, PARKS AND HOUSING: PLANNING TEAM

A. LeFevre, Planner (Coordinator)	Land Planning Branch
E. Levesque, Planner	Kamloops Regional Office
H. Hess, District Manager	Clinton District
D. Griffin, Resource Analyst	Land Planning Branch
B. Moen, Planner	Land Planning Branch

with assistance from:

W. Hubbard, Biologist	Land Planning Branch
D. Kreller, Planning Assistant	Land Planning Branch
K. Forster, Planning Assistant	Land Planning Branch
P. Tusar, Drafting	Land Planning Branch
B. Clarke, Drafting	Consultant, Victoria
L. Simons, Secretary	Land Planning Branch

INTERAGENCY PLANNING TASK GROUP

H. Hess (Chairman)	M.L.P.H., Lands and Housing Regional Operations Division
A. LeFevre (Coordinator)	M.L.P.H., Land Planning Branch
J. Ryder	Ministry of Agriculture and Food
G. White	Ministry of Energy, Mines and Petroleum Resources
A. Zackodnik	Ministry of Environment, Water Management
R. Ritcey	Ministry of Environment, Fish and Wildlife
D. Ferguson	Ministry of Forests (Kamloops)
A.P. Petty	Ministry of Forests (Lillooet)
H. Giles	Ministry of Forests (Williams Lake)
E. Levesque	M.L.P.H., Lands and Housing Regional Operations Division
D. Thompson	M.L.P.H., Parks and Outdoor Recreation Division
A. Tucker	Thompson-Nicola Regional District,
I. Knowles	Squamish-Lillooet Regional District
R. Chapman	Ministry of Transportation and Highways (Lillooet)
T. Maftechuk	Ministry of Municipal Affairs (Victoria)
*K. Smith	Ministry of Industry and Small Business Development
*M. Collins	Ministry of Tourism

*No Regional Representative available for Task Group.
Headquarters involvement in provision of data and review of drafts.

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